MITSUBISHI ELECTRIC

Changes for the Better

CE

SPLIT-TYPE, HEAT PUMP AIR CONDITIONERS
SPLIT-TYPE, AIR CONDITIONERS

No.OC261
REVISED EDITION-D

TECHNICAL & SERVICE MANUAL

R407C

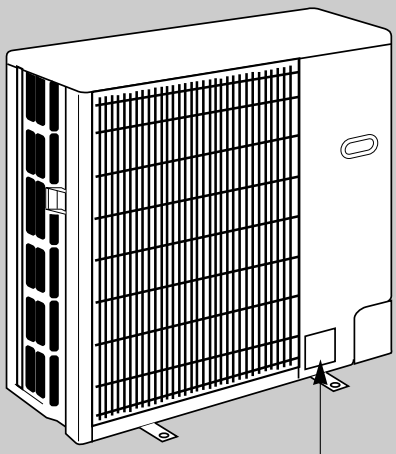
Outdoor unit
[model names]

PUH-P1VGAA	
PUH-P1.6VGAA	**PU-P1.6VGAA**
PUH-P1.6YGAA	**PU-P1.6YGAA**
PUH-P2VGAA	**PU-P2VGAA**
PUH-P2YGAA	**PU-P2YGAA**
PUH-P2.5VGAA	**PU-P2.5VGAA**
PUH-P2.5YGAA	**PU-P2.5YGAA**
PUH-P3VGAA	**PU-P3VGAA**
PUH-P3YGAA	**PU-P3YGAA**
PUH-P4VGAA	**PU-P4VGAA**
PUH-P4YGAA	**PU-P4YGAA**
PUH-P5YGAA	**PU-P5YGAA**
PUH-P6YGAA	**PU-P6YGAA**

[Service Ref.]
Service Ref. is on page 2.

Revision:
"**13. PARTS LIST**" has been modified.

• Please void OC261 REVISED EDITION-C.



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Mr.SLIM™

[Service Ref.]

PUH-P1VGAA.UK	
PUH-P1.6VGAA.UK	**PU-P1.6VGAA.UK**
PUH-P1.6YGAA.UK	**PU-P1.6YGAA.UK**
PUH-P2VGAA.UK	**PU-P2VGAA.UK**
PUH-P2YGAA.UK	**PU-P2YGAA.UK**
PUH-P2.5VGAA.UK	**PU-P2.5VGAA.UK**
PUH-P2.5YGAA.UK	**PU-P2.5YGAA.UK**
PUH-P3VGAA.UK	**PU-P3VGAA.UK**
PUH-P3YGAA.UK	**PU-P3YGAA.UK**
PUH-P4VGAA.UK	**PU-P4VGAA.UK**
PUH-P4YGAA.UK	**PU-P4YGAA.UK**
PUH-P5YGAA.UK	**PU-P5YGAA.UK**
PUH-P6YGAA.UK	**PU-P6YGAA.UK**
PUH-P1VGAA$_1$.UK	
PUH-P1.6VGAA$_1$.UK	**PU-P1.6VGAA$_1$.UK**
PUH-P1.6YGAA$_1$.UK	**PU-P1.6YGAA$_1$.UK**
PUH-P2VGAA$_1$.UK	**PU-P2VGAA$_1$.UK**
PUH-P2YGAA$_1$.UK	**PU-P2YGAA$_1$.UK**
PUH-P2.5VGAA$_1$.UK	**PU-P2.5VGAA$_1$.UK**
PUH-P2.5YGAA$_1$.UK	**PU-P2.5YGAA$_1$.UK**
PUH-P3VGAA$_1$.UK	**PU-P3VGAA$_1$.UK**
PUH-P3YGAA$_1$.UK	**PU-P3YGAA$_1$.UK**
PUH-P4VGAA$_1$.UK	**PU-P4VGAA$_1$.UK**
PUH-P4YGAA$_1$.UK	**PU-P4YGAA$_1$.UK**
PUH-P5YGAA$_1$.UK	**PU-P5YGAA$_1$.UK**
PUH-P6YGAA$_1$.UK	**PU-P6YGAA$_1$.UK**
PUH-P5YGAA$_2$.UK	**PU-P5YGAA$_2$.UK**
PUH-P6YGAA$_2$.UK	**PU-P6YGAA$_2$.UK**

Revision:
" **13. PARTS LIST** " has been modified on page 59.

Page	Revise point	Service Ref.	Incorrect	Correct
59	STRUCTURAL PARTS No.12 BASE	PUH-P5YGAA$_2$.UK PUH-P6YGAA$_2$.UK PU-P5YGAA$_2$.UK PU-P6YGAA$_2$.UK	S70 E13 686	S70 H13 686

1 TECHNICAL CHANGES

REVISED EDITION-A

PUH-P1, P1.6, P2, P2.5, P3, P4VGAA.UK → PUH-P1, P1.6, P2, P2.5, P3, P4VGAA$_1$.UK
PUH-P1.6, P2, P2.5, P3, P4YGAA.UK → PUH-P1.6, P2, P2.5, P3, P4YGAA$_1$.UK
PU-P1.6, P2, P2.5, P3, P4VGAA.UK → PU-P1.6, P2, P2.5, P3, P4VGAA$_1$.UK
PU-P1.6, P2, P2.5, P3, P4YGAA.UK → PU-P1.6, P2, P2.5, P3, P4YGAA$_1$.UK

● Strainer (#50) for stop valve of liquid pipe side and Filter Drier are not used.

REVISED EDITION-A

PUH-P1, P1.6, P2, P2.5, P3, P4VGAA.UK → PUH-P1, P1.6, P2, P2.5, P3, P4VGAA$_1$.UK
PUH-P1.6, P2, P2.5, P3, P4, P5, P6YGAA.UK → PUH-P1.6, P2, P2.5, P3, P4, P5, P6YGAA$_1$.UK
PU-P1.6, P2, P2.5, P3, P4VGAA.UK → PU-P1.6, P2, P2.5, P3, P4VGAA$_1$.UK
PU-P1.6, P2, P2.5, P3, P4, P5, P6YGAA.UK → PU-P1.6, P2, P2.5, P3, P4, P5, P6YGAA$_1$.UK

● Microcomputer of Outdoor Controller Board has changed since Filter Drier is not used.
(The limit of discharging temperature has been added.)

REVISED EDITION-A

PUH-P5YGAA.UK → PUH-P5YGAA$_1$.UK

● The method of connecting the Compressor's terminals has changed from Faston type to Screw type.

REVISED EDITION-B

PUH-P5YGAA$_1$.UK PUH-P6YGAA$_1$.UK
PU-P5YGAA$_1$.UK PU-P6YGAA$_1$.UK

● Compressor has changed due to the change in refrigerant oil.
Refrigerant oil : 3MA-POE → 3MAW-POE
Compressor model : ZR61KCE-TFD-522 → ZR61KCW-TFD-522
ZR72KCE-TFD-522 → ZR72KCW-TFD-522

REVISED EDITION-C

PUH-P5YGAA$_1$.UK → PUH-P5YGAA$_2$.UK
PUH-P6YGAA$_1$.UK → PUH-P6YGAA$_2$.UK
PU-P5YGAA$_1$.UK → PU-P5YGAA$_2$.UK
PU-P6YGAA$_1$.UK → PU-P6YGAA$_2$.UK

● Compressor has been changed.
Compressor model : ZR61KCW-TFD-522 → BE82YADMT
ZR72KCW-TFD-522 → BE96YADMT

2 SAFETY PRECAUTION

Cautions for using with the outdoor unit which adopts R407C refrigerant.

· **Do not use the existing refrigerant piping.**
-The old refrigerant and refrigerant oil in the existing piping contains a large amount of chlorine which may cause the refrigerant oil of the new unit to deteriorate.

· **Do not use copper pipes which are broken, deformed or discolour .**
In addition, be sure that the inner surfaces of the pipes are clean, free of hazardous sulphur and oxides, or have no dust / dirt, shaving particles, oils, moisture or any other contamination.
-If there is a large amount of residual oil (hydraulic oil, etc.) inside the piping and joints, deterioration of the refrigerant oil will result.

· **Store the piping to be used during installation indoors and keep both ends of the piping sealed until just before brazing. (Store elbows and other joints in a plastic bag.)**
-If dust, dirt, or water enters the refrigerant cycle, deterioration of the oil and compressor trouble may result.

· **Use ester oil, ether oil or alkyl benzene (small amount) as the refrigerant oil to coat flares and flange connections.**
-The refrigerant oil will degrade if it is mixed with a large amount of mineral oil.

Use liquid refrigerant to fill the system.
-If gas refrigerant is used to fill the system, the composition of the refrigerant in the cylinder will change and performance may drop.

· **Do not use a refrigerant other than R407C.**
-If another refrigerant (R22, etc.) is used, the chlorine in the refrigerant may cause the refrigerant oil to deteriorate.

· **Use a vacuum pump with a reverse flow check valve.**
-The vacuum pump oil may flow back into the refrigerant cycle and cause the refrigerant oil to deteriorate.

· **Do not use the following tools that are used with conventional refrigerant.**
(Gauge manifold , charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, refrigerant recovery equipment)
-If the conventional refrigerant and refrigerant oil are mixed in the R407C, the refrigerant may deteriorated.
-If water is mixed in the R407C, the refrigerant oil may deteriorate.
-Since R407C does not contain any chlorine, gas leak detectors for conventional refrigerant will not react to it.

· **Do not use a charging cylinder.**
-Using a charging cylinder may cause the refrigerant to deteriorate.

· **Be especially careful when managing the tools.**
-if dust, dirt, or water gets in the refrigerant cycle, the refrigerant may deteriorate.

· **Do not use the drier which is sold in the field.**
-The drier for R407C refrigerant is pre-attached to outdoor unit refrigerant circuit.
-Some drier in the field are not in conformity with R407C refrigerant.

[1] Service tools

Use the below service tools as exclusive tools for R407C refrigerant.

No.	Tool name	Specifications
①	Gauge manifold	·Only for R407C.
		·Use the existing fitting SPECIFICATIONS. (UNF7/16)
		·Use high-tension side pressure of 3.43MPa·G or over.
②	Charge hose	·Only for R407C.
		·Use pressure performance of 5.10MPa·G or over.
③	Electronic scale	
④	Gas leak detector	·Use the detector for R407C.
⑤	Adapter for reverse flow check.	·Attach on vacuum pump.
⑥	Refrigerant charge base.	
⑦	Refrigerant cylinder.	·For R407C ·Top of cylinder (Brown) ·Cylinder with syphon
⑧	Refrigerant recovery equipment.	

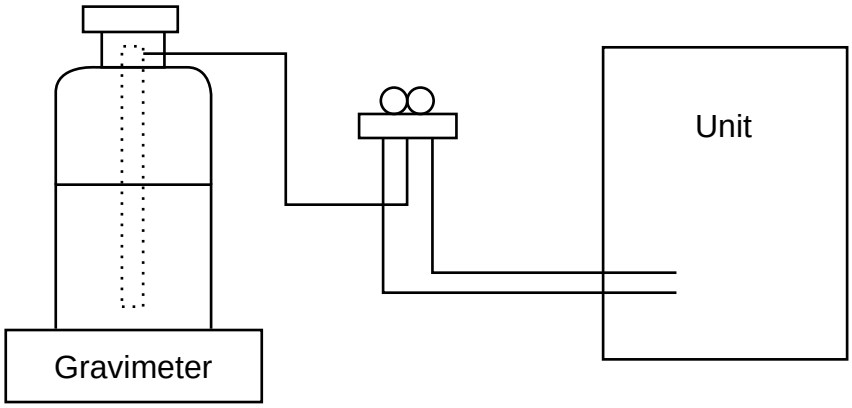
[2] Notice on repair

·After recovering the all refrigerant in the unit, perform repair work.
·Do not release refrigerant in the air.
·After completing the repair work, recharge the specified amount of liquid refrigerant.

[3] Refrigerant recharging

(1) Refrigerant recharging process

①Direct charging from the cylinder.
·R407C cylinder are available on the market has a syphon pipe.
·Leave the syphon pipe cylinder standing and recharge it.
(By liquid refrigerant)



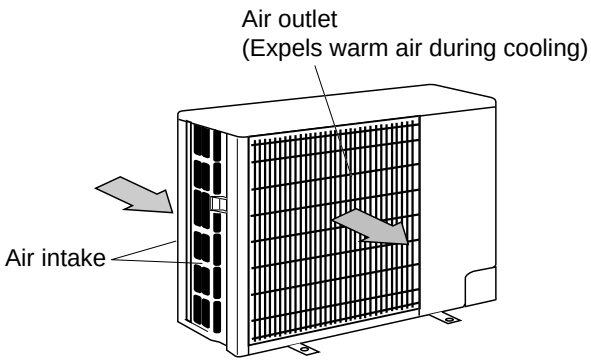
(2) Recharge in refrigerant leakage case

·After recovering the all refrigerant in the unit, proceed to working.
·Do not release the refrigerant in the air.
·After completing the repair service, recharge the cycle with the specified amount of liquid refrigerant.

3 COMBINATION OF INDOOR AND OUTDOOR UNITS

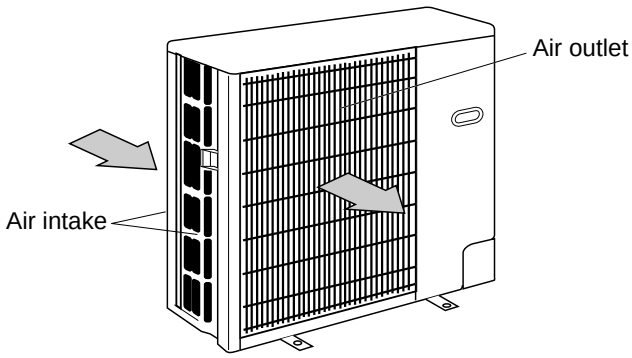
Indoor unit			Outdoor unit																							
			Heat pump type												Cooling only type											
			PUH-P • GAA.UK PUH-P • GAA1.UK PUH-P • GAA2.UK···(Only 5Y 6Y)												PU-P • GAA.UK PU-P • GAA1.UK PU-P • GAA2.UK···(Only 5Y 6Y)											
	Service Ref.	Service Manual No.	1	1.6		2		2.5		3		4		5	6	1.6		2		2.5		3		4		5	6
			V	V	Y	V	Y	V	Y	V	Y	V	Y	Y	Y	V	Y	V	Y	V	Y	V	Y	V	Y	Y	Y
Heat pump with electric heater	PEHD-P•EAH	MEE 01K048	—	○	○	○	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—
	PCH-P•GAH1	OC182 REVISED EDITION-B	—	—	—	○	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—
	PKH-P•GALH1	OC176 REVISED EDITION-B	—	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	PKH-P•FALH2	OC175 REVISED EDITION-B	—	—	—	—	—	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	PSH-P•GAH1	OC212 REVISED EDITION-A	—	—	—	—	—	—	—	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—
	PLH-P•KAH1.UK	OC235 REVISED EDITION-A	—	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	PLH-P•AAH1.UK	OC236 REVISED EDITION-A	—	—	—	—	—	—	—	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—
Heat pump without electric heater or Cooling only	PEAD-P•EA	MEE 01K048	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	PCA-P•GA1	OC182	—	—	—	○	○	○	○	○	○	○	○	○	○	—	—	○	○	○	○	○	○	○	○	○	○
	PKA-P•GAL1	OC176 REVISED EDITION-B	—	○	○	○	○	—	—	—	—	—	—	—	—	○	○	○	○	—	—	—	—	—	—	—	—
	PKA-P•FAL2	OC175 REVISED EDITION-B	—	—	—	—	—	○	○	○	○	○	○	—	—	—	—	—	—	○	○	○	○	○	○	—	—
	PSA-P•GA1	OC212 REVISED EDITION-B	—	—	—	—	—	—	—	○	○	○	○	○	○	—	—	—	—	—	—	○	○	○	○	○	○
	PLA-P•KA1.UK	OC240 REVISED EDITION-A	—	○	○	○	○	○	○	—	—	—	—	—	—	○	○	○	○	○	○	—	—	—	—	—	—
	PLA-P•AA1.UK	OC241 REVISED EDITION-A	—	—	—	—	—	—	—	○	○	○	○	○	○	—	—	—	—	—	—	○	○	○	○	○	○
	PMH-P·BA1	OC238 REVISED EDITION-A	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	PMH-P·BA2	OC279 REVISED EDITION-B	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	PCA-P•HA	OC289	—	—	—	—	—	—	—	○	○	—	—	○	—	—	—	—	—	—	—	○	○	—	—	○	—

4 PART NAMES AND FUNCTIONS



PUH-P1VGAA.UK
PU/PUH-P1.6VGAA.UK
PU/PUH-P1.6YGAA.UK

PUH-P1VGAA1.UK
PU/PUH-P1.6VGAA1.UK
PU/PUH-P1.6YGAA1.UK

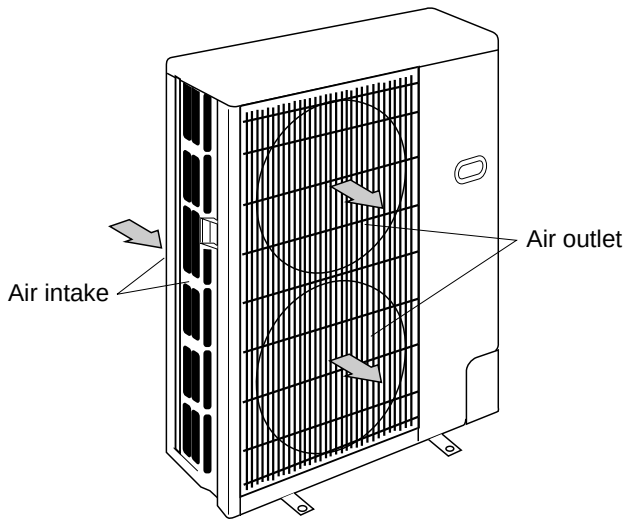


PU/PUH-P2VGAA.UK
PU/PUH-P2.5VGAA.UK
PU/PUH-P3VGAA.UK

PU/PUH-P2VGAA1.UK
PU/PUH-P2.5VGAA1.UK
PU/PUH-P3VGAA1.UK

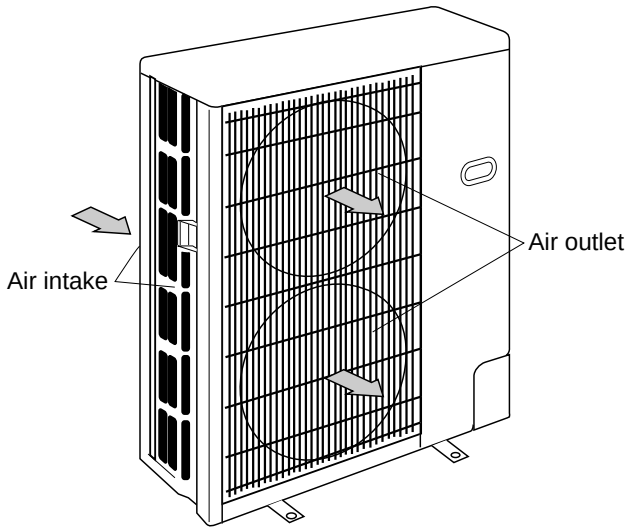
PU/PUH-P2YGAA.UK
PU/PUH-P2.5YGAA.UK
PU/PUH-P3YGAA.UK

PU/PUH-P2YGAA1.UK
PU/PUH-P2.5YGAA1.UK
PU/PUH-P3YGAA1.UK



PU/PUH-P4VGAA.UK
PU/PUH-P4YGAA.UK

PU/PUH-P4VGAA1.UK
PU/PUH-P4YGAA1.UK



PU/PUH-P5YGAA.UK
PU/PUH-P6YGAA.UK

PU/PUH-P5YGAA1.UK
PU/PUH-P6YGAA1.UK

PU/PUH-P5YGAA2.UK
PU/PUH-P6YGAA2.UK

CHARGELESS SYSTEM
PRE-CHARGED REFRIGERANT IS SUPPLIED FOR PIPING LENGTH AT SHIPMENT.
PU/PUH-P1, P1.6, P2, P2.5 : max 20m
PU/PUH-P3, P4, P5, P6 : max 30m

The refrigerant circuit with LEV(Linear Expansion Valve) and a large accumulator always control the optimal refrigerant level regardless of the length (20/30m max. and 5m min.) of piping. The additional refrigerant charging work during installation often causes problems. Heretofore it is completely eliminated. This unique system improves the quality and reliability of the work done.It also helps to speed up the installation time.

5 SPECIFICATIONS

5-1. SPECIFICATIONS

5-1-1. Heat pump

	Service Ref.			PUH-P1VGAA.UK PUH-P1VGAA1.UK		PUH-P1.6VGAA / YGAA.UK PUH-P1.6VGAA1 / YGAA1.UK	
OUTDOOR UNIT	Function			Cooling	Heating	Cooling	Heating
	Power supply (phase, cycle, voltage)			Single,50Hz,220/230/240V		Single,50Hz,220/230/240V / 3-ph,50Hz,380/400/415V	
		Input	kW	1.11	1.02	1.59	1.64
		Running current	A	4.92	4.52	7.36 / 2.49	7.59 / 2.56
		Starting current	A	30		36/20	
	External finish			Munsell 5Y 7/1			
	Refrigerant control			Linear Expansion Valve			
	Compressor			Hermetic			
		Model		RE189VHSMT		RE277VHSMT/RE277YFKM	
		Motor output	kW	0.9		1.3	
		Starter type		Line start			
		Protection devices		Internal thermostat HP switch Discharge thermo		Internal thermostat / Thermal relay HP switch / HP switch Discharge thermo / Discharge thermo	
		Crankcase heater	W	30			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) × No.		Propeller (direct) × 1			
		Fan motor output	kW	0.07			
		Airflow	m³/min(CFM)	45(1,590)		45(1,590)	
	Defrost method			Reverse cycle			
	Noise level	Cooling	dB	46		47	
		Heating	dB	48		49	
	Dimensions	W	mm(in.)	900(35-7/16)			
		D	mm(in.)	330+20(13+3/4)			
		H	mm(in.)	650(25-5/8)			
	Weight		kg(lbs)	50(110)		55(121)	
REFRIGERANT PIPING	Refrigerant			R407C			
		Charge	kg(lbs)	1.7(3.8)		2.5(5.5)	
		Oil (Model)	L	0.57(Ester)MEL56			
	Pipe size O.D.	Liquid	mm(in.)	6.35(1/4)		9.52(3/8)	
		Gas	mm(in.)	12.7(1/2)		15.88(5/8)	
	Connection method	Indoor side		Flared			
		Outdoor side		Flared			
	Between the indoor & outdoor unit	Height difference		Max. 30m		Max. 40m	
		Piping length		Max. 30m		Max. 40m	

Notes1. Rating Conditions (ISO T1)
Cooling : Indoor : D.B. 27˚C(80˚F), W.B. 19˚C(66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C(75˚F)
Heating : Indoor : D.B. 20˚C(68˚F) Outdoor : D.B. 7˚C(45˚F), W.B. 6˚C(43˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C, W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C, W.B. 15˚C	D.B. -5˚C
Heating	Upper limit	D.B. 28˚C	D.B. 24˚C, W.B. 18˚C
	Lower limit	D.B. 17˚C	D.B. -11˚C, W.B. -12˚C

3. Above data based on indicated voltage
Indoor Unit 1 phase 240V 50Hz
Outdoor Unit 1 phase 240V 50Hz / 3 phase 415V 50Hz

	Service Ref.			PUH-P2VGAA / YGAA.UK PUH-P2VGAA$_1$ / YGAA$_1$.UK		PUH-P2.5VGAA / YGAA.UK PUH-P2.5VGAA$_1$ / YGAA$_1$.UK	
OUTDOOR UNIT	Function			Cooling	Heating	Cooling	Heating
	Power supply (phase, cycle, voltage)			Single, 50Hz, 220/230/240V / 3-ph, 50Hz, 380/400/415V(4wires)			
		Input	kW	2.29	2.36	2.77	2.68
		Running current	A	10.26 / 3.70	10.57 / 3.82	11.90 / 4.48	11.51 / 4.34
		Starting current	A	62 / 31		77 / 35	
	External finish			Munsell 5Y 7/1			
	Refrigerant control			Linear Expansion Valve			
	Compressor			Hermetic			
		Model		NE36VMJMT / NE36YEKMT		NE41VMJMT / NE41YEKMT	
		Motor output	kW	1.6		1.9	
		Starter type		Line start			
		Protection devices		Internal thermostat / Thermal relay HP switch / HP switch Discharge thermo / Discharge thermo			
		Crankcase heater	W	38			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) × No.		Propeller (direct) × 1			
		Fan motor output	kW	0.07			
		Airflow	m³/min(CFM)	55(1,940)		50(1,770)	
	Defrost method			Reverse cycle			
	Noise level	Cooling	dB	48			
		Heating	dB	49		50	
	Dimensions	W	mm(in.)	900(35-7/16)			
		D	mm(in.)	330+20(13+3/4)			
		H	mm(in.)	855(33-5/8)			
	Weight		kg(lbs)	71(157)		82(181)	
REFRIGERANT PIPING	Refrigerant			R407C			
		Charge	kg(lbs)	2.6(5.7)		3.1(6.8)	
		Oil (Model)	L	1.2 (Ester)MEL56			
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)			
		Gas	mm(in.)	15.88(5/8)			
	Connection method	Indoor side		Flared			
		Outdoor side		Flared			
	Between the indoor & outdoor unit	Height difference		Max. 40m		Max. 50m	
		Piping length		Max. 40m		Max. 50m	

Notes1. Rating Conditions (ISO T1)
Cooling : Indoor : D.B. 27˚C(80˚F), W.B. 19˚C(66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C(75˚F)
Heating : Indoor : D.B. 20˚C(68˚F) Outdoor : D.B. 7˚C(45˚F), W.B. 6˚C(43˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C, W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C, W.B. 15˚C	D.B. -5˚C
Heating	Upper limit	D.B. 28˚C	D.B. 24˚C, W.B. 18˚C
	Lower limit	D.B. 17˚C	D.B. -11˚C, W.B. -12˚C

3. Above data based on indicated voltage
Indoor Unit 1 phase 240V 50Hz
Outdoor Unit 1 phase 240V 50Hz / 3 phase 415V 50Hz

	Service Ref.			PUH-P3VGAA / YGAA.UK PUH-P3VGAA$_1$ / YGAA$_1$.UK		PUH-P4VGAA / YGAA.UK PUH-P4VGAA$_1$ / YGAA$_1$.UK	
OUTDOOR UNIT	Function			Cooling	Heating	Cooling	Heating
	Power supply (phase, cycle, voltage)			Single, 50Hz, 220/230/240V / 3-ph, 50Hz, 380/400/415V(4wires)			
		Input	kW	3.27	3.48	3.43	3.62
		Running current	A	14.81 / 5.29	15.76 / 5.63	15.71 / 5.55	16.58 / 5.86
		Starting current	A	93 / 47		99 / 49	
	External finish			Munsell 5Y 7/1			
	Refrigerant control			Linear Expansion Valve			
	Compressor			Hermetic			
		Model		NE52VNJMT / NE52YDKMT		NE56VNJMT / NE56YDKMT	
		Motor output	kW	2.5		2.7	
		Starter type		Line start			
		Protection devices		Internal thermostat / HP switch / Discharge thermo		Thermal relay / HP switch / Discharge thermo	
		Crankcase heater	W	38			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) × No.		Propeller (direct) × 1		Propeller (direct) × 2	
		Fan motor output	kW	0.07		0.07+0.07	
		Airflow	m³/min(CFM)	50(1,770)		85(3,000)	
	Defrost method			Reverse cycle			
	Noise level	Cooling	dB	49		51	
		Heating	dB	51		53	
	Dimensions	W	mm(in.)	900(35-7/16)			
		D	mm(in.)	330+20(13+3/4)			
		H	mm(in.)	855(33-5/8)		1,260(49-5/8)	
	Weight		kg(lbs)	82(181)		96(212)	
REFRIGERANT PIPING	Refrigerant			R407C			
		Charge	kg(lbs)	3.3(7.3)		4.0(8.8)	
		Oil (Model)	L	1.3 (Ester)MEL56			
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)			
		Gas	mm(in.)	15.88(5/8)		19.05(3/4)	
	Connection method	Indoor side		Flared			
		Outdoor side		Flared			
	Between the indoor & outdoor unit	Height difference		Max. 50m			
		Piping length		Max. 50m			

Notes1. Rating Conditions (ISO T1)
Cooling : Indoor : D.B. 27˚C(80˚F), W.B. 19˚C(66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C(75˚F)
Heating : Indoor : D.B. 20˚C(68˚F) Outdoor : D.B. 7˚C(45˚F), W.B. 6˚C(43˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C, W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C, W.B. 15˚C	D.B. -5˚C
Heating	Upper limit	D.B. 28˚C	D.B. 24˚C, W.B. 18˚C
	Lower limit	D.B. 17˚C	D.B. -11˚C, W.B. -12˚C

3. Above data based on indicated voltage
Indoor Unit 1 phase 240V 50Hz
Outdoor Unit 1 phase 240V 50Hz / 3 phase 415V 50Hz

	Service Ref.			PUH-P5YGAA.UK PUH-P5YGAA1.UK		PUH-P6YGAA.UK PUH-P6YGAA1.UK	
OUTDOOR UNIT	Function			Cooling	Heating	Cooling	Heating
	Power supply (phase, cycle, voltage)			3-ph, 50Hz, 380/400/415V(4wires)			
		Input	kW	4.70	5.04	5.58	5.91
		Running current	A	7.60	8.15	9.03	9.56
		Starting current	A	65.5		74	
	External finish			Munsell 5Y 7/1			
	Refrigerant control			Linear Expansion Valve			
	Compressor			Hermetic			
		Model		ZR61KCE-TFD-230 (**YGAA.UK**) ZR61KCW-TFD-522 (**YGAA1.UK**)		ZR72KCW-TFD-522	
		Motor output	kW	3.5		4.2	
		Starter type		Line start			
		Protection devices		Internal thermostat, thermal relay, HP switch, Discharge thermo			
		Crankcase heater	W	38			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) × No.		Propeller (direct) × 2			
		Fan motor output	kW	0.07 +0.07			
		Airflow	m³/min(CFM)	95(3,360)		100(3,530)	
	Defrost method			Reverse cycle			
	Noise level	Cooling	dB(A)	55		57	
		Heating	dB(A)	56		58	
	Dimensions	W	mm(in.)	1,050(41-5/16)			
		D	mm(in.)	330+20(13+3/4)			
		H	mm(in.)	1,260(49-5/8)			
	Weight		kg(lbs)	122(269)			
REFRIGERANT PIPING	Refrigerant			R407C			
		Charge	kg(lbs)	4.6(10.1)		4.9(10.8)	
		Oil (Model)	L	1.690 (Ester) 3MAW-POE		1.774 (Ester) 3MAW-POE	
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)			
		Gas	mm(in.)	19.05(3/4)			
	Connection method	Indoor side		Flared			
		Outdoor side		Flared			
	Between the indoor & outdoor unit	Height difference		Max. 50m			
		Piping length		Max. 50m			

Notes1. Rating Conditions (ISO T1)
Cooling : Indoor : D.B. 27˚C(80˚F), W.B. 19˚C (66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C (75˚F)
Heating : Indoor : D.B. 20˚C(68˚F) Outdoor : D.B. 7˚C(45˚F), W.B. 6˚C (43˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C, W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C, W.B. 15˚C	D.B. -5˚C
Heating	Upper limit	D.B. 28˚C	D.B. 24˚C, W.B. 18˚C
	Lower limit	D.B. 17˚C	D.B. -11˚C, W.B. -12˚C

3. Above data based on indicated voltage
Indoor Unit 1 phase 240V 50Hz
Outdoor Unit 3 phase 415V 50Hz

	Service Ref.			PUH-P5YGAA2.UK		PUH-P6YGAA2.UK	
OUTDOOR UNIT	Function			Cooling	Heating	Cooling	Heating
	Power supply (phase, cycle, voltage)			3-ph, 50Hz, 380/400/415V(4wires)			
		Input	kW	4.70	5.04	5.58	5.91
		Running current	A	7.60	8.15	9.03	9.56
		Starting current	A	65.5		74	
	External finish			Munsell 5Y 7/1			
	Refrigerant control			Linear Expansion Valve			
	Compressor			Hermetic			
		Model		BE82YADMT		BE96YADMT	
		Motor output	kW	3.5		4.2	
		Starter type		Line start			
		Protection devices		Thermal relay, HP switch, Discharge thermo			
		Crankcase heater	W	38			
	Heat exchanger			Plate fin coil			
	Fan	Fan(drive) × No.		Propeller (direct) × 2			
		Fan motor output	kW	0.07 +0.07			
		Airflow	m³/min(CFM)	95(3,360)		100(3,530)	
	Defrost method			Reverse cycle			
	Noise level	Cooling	dB(A)	55		57	
		Heating	dB(A)	56		58	
	Dimensions	W	mm(in.)	1,050(41-5/16)			
		D	mm(in.)	330+20(13+3/4)			
		H	mm(in.)	1,260(49-5/8)			
	Weight		kg(lbs)	125(276)			
REFRIGERANT PIPING	Refrigerant			R407C			
		Charge	kg(lbs)	4.6(10.1)		4.9(10.8)	
		Oil (Model)	L	1.7 (Ester) MEL56			
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)			
		Gas	mm(in.)	19.05(3/4)			
	Connection method	Indoor side		Flared			
		Outdoor side		Flared			
	Between the indoor & outdoor unit	Height difference		Max. 50m			
		Piping length		Max. 50m			

Notes1. Rating Conditions (ISO T1)
Cooling : Indoor : D.B. 27˚C(80˚F), W.B. 19˚C (66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C (75˚F)
Heating : Indoor : D.B. 20˚C(68˚F) Outdoor : D.B. 7˚C(45˚F), W.B. 6˚C (43˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C, W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C, W.B. 15˚C	D.B. -5˚C
Heating	Upper limit	D.B. 28˚C	D.B. 24˚C, W.B. 18˚C
	Lower limit	D.B. 17˚C	D.B. -11˚C, W.B. -12˚C

3. Above data based on indicated voltage
Indoor Unit 1 phase 240V 50Hz
Outdoor Unit 3 phase 415V 50Hz

5-1-2. Cooling only type

	Service Ref.			PU-P1.6VGAA / YGAA.UK PU-P1.6VGAA1 / YGAA1.UK	PU-P2VGAA / YGAA.UK PU-P2VGAA1 / YGAA1.UK	PU-P2.5VGAA / YGAA.UK PU-P2.5VGAA1 / YGAA1.UK
OUTDOOR UNIT	Function			Cooling	Cooling	Cooling
	Power supply (phase, cycle, voltage)			Single, 50Hz, 220/230/240V / 3-ph, 50Hz, 380/400/415V(4wires)		
		Input	kW	1.59	2.29	2.77
		Running current	A	7.36 / 2.49	10.26 / 3.70	11.90 / 4.48
		Starting current	A	36 / 20	62 / 31	77 / 35
	External finish			Munsell 5Y 7/1		
	Refrigerant control			Linear Expansion Valve		
	Compressor			Hermetic		
		Model		RE277VHSMT/RE277YFKM	NE36VMJMT/NE36YEKMT	NE41VMJMT/NE41YEKMT
		Motor output	kW	1.3	1.6	1.9
		Starter type		Line start		
		Protection devices		Internal thermostat, HP switch, Discharge thermo / Thermal relay,Discharge thermo,HP switch		
		Crankcase heater	W	30	38	
	Heat exchanger			Plate fin coil		
	Fan	Fan(drive) × No.		Propeller (direct) × 1		
		Fan motor output	kW	0.07		
		Airflow	m³/min(CFM)	45(1,590)	55(1,940)	50(1,770)
	Defrost method			—		
	Noise level	Cooling	dB	47	48	
	Dimensions	W	mm(in.)	900(35-7/16)		
		D	mm(in.)	330+20(13+3/4)		
		H	mm(in.)	650(25-5/8)	855(33-5/8)	
	Weight		kg(lbs)	55(121)	71(157)	82(181)
REFRIGERANT PIPING	Refrigerant			R407C		
		Charge	kg(lbs)	2.5(5.5)	2.6(5.7)	3.1(6.8)
		Oil (Model)	L	0.57 (Ester)MEL56	1.2 (Ester)MEL56	
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)		
		Gas	mm(in.)	15.88(5/8)		
	Connection method	Indoor side		Flared		
		Outdoor side		Flared		
	Between the indoor & outdoor unit	Height difference		Max. 40m		Max. 50m
		Piping length		Max. 40m		Max. 50m

Notes1. Rating Conditions (ISO T1)
Cooling : Indoor : D.B. 27˚C(80˚F), W.B. 19˚C (66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C (75˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C, W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C, W.B. 15˚C	D.B. -5˚C

3. Above data based on indicated voltage
Indoor Unit 1 phase 240V 50Hz
Outdoor Unit 1 phase 240V 50Hz / 3phase 415V 50Hz

	Service Ref.			PU-P3VGAA / YGAA.UK PU-P3VGAA1 / YGAA1.UK	PU-P4VGAA / YGAA.UK PU-P4VGAA1 / YGAA1.UK
OUTDOOR UNIT	Function			Cooling	Cooling
	Power supply (phase, cycle, voltage)			Single, 50Hz, 220/230/240V / 3-ph, 50Hz, 380/400/415V(4wires)	
	Input		kW	3.27	3.43
	Running current		A	14.81 / 5.29	15.71 / 5.55
	Starting current		A	93 / 47	99 / 49
	External finish			Munsell 5Y 7/1	
	Refrigerant control			Linear Expansion Valve	
	Compressor			Hermetic	
	Model			NE52VNJMT / NE52YDKMT	NE56VNJMT / NE56YDKMT
	Motor output		kW	2.5	2.7
	Starter type			Line start	
	Protection devices			Internal thermostat / Thermal relay HP switch / HP switch Discharge thermo / Discharge thermo	
	Crankcase heater		W	38	
	Heat exchanger			Plate fin coil	
	Fan	Fan(drive) × No.		Propeller (direct) × 1	Propeller (direct) × 2
		Fan motor output	kW	0.07	0.07+0.07
		Airflow	m³/min(CFM)	50(1,770)	85(3,000)
	Defrost method			—	
	Noise level	Cooling	dB	49	51
	Dimensions	W	mm(in.)	900(35-7/16)	
		D	mm(in.)	330+20(13+3/4)	
		H	mm(in.)	855(33-5/8)	1,260(49-5/8)
	Weight		kg(lbs)	82(181)	96(212)
REFRIGERANT PIPING	Refrigerant			R407C	
	Charge		kg(lbs)	3.3(7.3)	4.0(8.8)
	Oil (Model)		L	1.3 (Ester)MEL56	
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)	
		Gas	mm(in.)	15.88(5/8)	19.05(3/4)
	Connection method	Indoor side		Flared	
		Outdoor side		Flared	
	Between the indoor & outdoor unit	Height difference		Max. 50m	
		Piping length		Max. 50m	

Notes1. Rating Conditions (ISO T1)
Cooling : Indoor : D.B. 27˚C(80˚F), W.B. 19˚C(66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C(75˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C , W.B. 22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C, W.B. 15˚C	D.B. -5˚C

3. Above data based on indicated voltage
Indoor Unit 1 phase 240V 50Hz
Outdoor Unit 1 phase 240V 50Hz/3 phase 415V 50Hz

	Service Ref.			PU-P5YGAA.UK PU-P5YGAA1.UK	PU-P6YGAA.UK PU-P6YGAA1.UK
OUTDOOR UNIT	Function			Cooling	Cooling
	Power supply (phase, cycle, voltage)			3-ph, 50Hz, 380/400/415V(4wires)	
		Input	kW	4.70	5.58
		Running current	A	7.60	9.03
		Starting current	A	65.5	74
	External finish			Munsell 5Y 7/1	
	Refrigerant control			Linear Expansion Valve	
	Compressor			Hermetic	
		Model		ZR61KCE-TFD-230 (**YGAA.UK**)	ZR72KCW-TFD-522
				ZR61KCW-TFD-522 (**YGAA1.UK**)	
		Motor output	kW	3.5	4.2
		Starter type		Line start	
		Protection devices		Internal thermostat, thermal relay, HP switch, Discharge thermo	
		Crankcase heater	W	38	
	Heat exchanger			Plate fin coil	
	Fan	Fan(drive) × No.		Propeller (direct) × 2	
		Fan motor output	kW	0.07+0.07	
		Airflow	m³/min(CFM)	95(3,360)	100(3,530)
	Defrost method			—	
	Noise level	Cooling	dB	55	57
	Dimensions	W	mm(in.)	1,050(41-5/16)	
		D	mm(in.)	330+20(13+3/4)	
		H	mm(in.)	1,260(49-5/8)	
	Weight		kg(lbs)	122(269)	
REFRIGERANT PIPING	Refrigerant			R407C	
		Charge	kg(lbs)	4.6(10.1)	4.9(10.8)
		Oil (Model)	L	1.690 3MAW-POE	1.774 3MAW-POE
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)	
		Gas	mm(in.)	19.05(3/4)	
	Connection method	Indoor side		Flared	
		Outdoor side		Flared	
	Between the indoor & outdoor unit	Height difference		Max. 50m	
		Piping length		Max. 50m	

Notes1. Rating Conditions (ISO T1)
Cooling : Indoor : D.B. 27˚C(80˚F), W.B. 19˚C(66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C(75˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C , W.B.22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C, W.B. 15˚C	D.B. -5˚C

3. Above data based on indicated voltage
Indoor Unit 1 phase 240V 50Hz
Outdoor Unit 3 phase 415V 50Hz

	Service Ref.			PU-P5YGAA2.UK	PU-P6YGAA2.UK
OUTDOOR UNIT	Function			Cooling	Cooling
	Power supply (phase, cycle, voltage)			3-ph, 50Hz, 380/400/415V(4wires)	
		Input	kW	4.70	5.58
		Running current	A	7.60	9.03
		Starting current	A	65.5	74
	External finish			Munsell 5Y 7/1	
	Refrigerant control			Linear Expansion Valve	
	Compressor			Hermetic	
		Model		BE82YADMT	BE96YADMT
		Motor output	kW	3.5	4.2
		Starter type		Line start	
		Protection devices		Thermal relay, HP switch, Discharge thermo	
		Crankcase heater	W	38	
	Heat exchanger			Plate fin coil	
	Fan	Fan(drive) × No.		Propeller (direct) × 2	
		Fan motor output	kW	0.07+0.07	
		Airflow	m³/min(CFM)	95(3,360)	100(3,530)
	Defrost method			—	
	Noise level	Cooling	dB	55	57
	Dimensions	W	mm(in.)	1,050(41-5/16)	
		D	mm(in.)	330+20(13+3/4)	
		H	mm(in.)	1,260(49-5/8)	
	Weight		kg(lbs)	125(276)	
REFRIGERANT PIPING	Refrigerant			R407C	
		Charge	kg(lbs)	4.6(10.1)	4.9(10.8)
		Oil (Model)	L	1.7 (Ester) MEL56	
	Pipe size O.D.	Liquid	mm(in.)	9.52(3/8)	
		Gas	mm(in.)	19.05(3/4)	
	Connection method	Indoor side		Flared	
		Outdoor side		Flared	
	Between the indoor & outdoor unit	Height difference		Max. 50m	
		Piping length		Max. 50m	

Notes1. Rating Conditions (ISO T1)
Cooling : Indoor : D.B. 27˚C(80˚F), W.B. 19˚C(66˚F) Outdoor : D.B. 35˚C(95˚F), W.B. 24˚C(75˚F)
Refrigerant piping length (one way) : 5m (16ft)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35˚C , W.B.22.5˚C	D.B. 46˚C
	Lower limit	D.B. 19˚C, W.B. 15˚C	D.B. -5˚C

3. Above data based on indicated voltage
Indoor Unit 1 phase 240V 50Hz
Outdoor Unit 3 phase 415V 50Hz

6 DATA

6-1. REFILLING REFRIGERANT CHARGE (R407C : kg)

Service Ref.	Piping length (one way)					Factory charged
	10m	20m	30m	40m	50m	
PUH-P1VGAA.UK PUH-P1VGAA$_1$.UK	1.6	1.7	1.8	—	—	1.7
PU/PUH-P1.6VGAA.UK PU/PUH-P1.6VGAA$_1$.UK	2.4	2.5	2.6	3.0	—	2.5
PU/PUH-P1.6YGAA.UK PU/PUH-P1.6YGAA$_1$.UK	2.4	2.5	2.6	3.0	—	2.5
PU/PUH-P2VGAA.UK PU/PUH-P2VGAA$_1$.UK	2.5	2.6	3.1	3.7	—	2.6
PU/PUH-P2YGAA.UK PU/PUH-P2YGAA$_1$.UK	2.5	2.6	3.1	3.7	—	2.6
PU/PUH-P2.5VGAA.UK PU/PUH-P2.5VGAA$_1$.UK	2.9	3.1	3.3	3.9	4.5	3.1
PU/PUH-P2.5YGAA.UK PU/PUH-P2.5YGAA$_1$.UK	2.9	3.1	3.3	3.9	4.5	3.1
PU/PUH-P3VGAA.UK PU/PUH-P3VGAA$_1$.UK	2.9	3.1	3.3	3.9	4.5	3.3
PU/PUH-P3YGAA.UK PU/PUH-P3YGAA$_1$.UK	2.9	3.1	3.3	3.9	4.5	3.3
PU/PUH-P4VGAA.UK PU/PUH-P4VGAA$_1$.UK	3.4	3.7	4.0	4.7	5.4	4.0
PU/PUH-P4YGAA.UK PU/PUH-P4YGAA$_1$.UK	3.4	3.7	4.0	4.7	5.4	4.0
PU/PUH-P5YGAA.UK PU/PUH-P5YGAA$_1$.UK PU/PUH-P5YGAA$_2$.UK	4.0	4.3	4.6	5.3	6.0	4.6
PU/PUH-P6YGAA.UK PU/PUH-P6YGAA$_1$.UK PU/PUH-P6YGAA$_2$.UK	4.3	4.6	4.9	5.6	6.3	4.9

This is a dividing line between the ones that need no refrigerant charge and the ones that need additional refrigerant charge.

6-2. COMPRESSOR TECHNICAL DATA

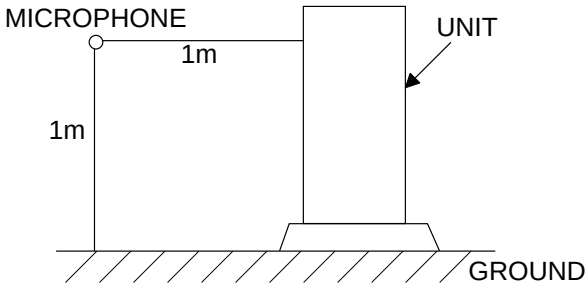
(at 20°C)
[Except P5, P6]

Unit		PUH-P1VGAA.UK PUH-P1VGAA$_1$.UK	PU/PUH-P1.6VGAA.UK PU/PUH-P1.6VGAA$_1$.UK	PU/PUH-P1.6YGAA.UK PU/PUH-P1.6YGAA$_1$.UK	PU/PUH-P2VGAA.UK PU/PUH-P2VGAA$_1$.UK	PU/PUH-P2YGAA.UK PU/PUH-P2YGAA$_1$.UK
Compressor model		RE189VHSMT	RE277VHSMT	RE277YFKM	NE36VMJMT	NE36YEKMT
Winding Resistance (Ω)	U-V (R-C)	2.79	1.80	10.8	0.89	5.01
	U-W (S-C)	3.36	3.00	10.8	2.03	5.01
	W-V	—	—	10.8	—	5.01

Unit		PU/PUH-P2.5VGAA.UK PU/PUH-P2.5VGAA$_1$.UK	PU/PUH-P2.5YGAA.UK PU/PUH-P2.5YGAA$_1$.UK	PU/PUH-P3VGAA.UK PU/PUH-P3VGAA$_1$.UK	PU/PUH-P3YGAA.UK PU/PUH-P3YGAA$_1$.UK	PU/PUH-P4VGAA.UK PU/PUH-P4VGAA$_1$.UK
Compressor model		NE41VMJMT	NE41YEKMT	NE52VNJMT	NE52YDKMT	NE56VNJMT
Winding Resistance (Ω)	U-V (R-C)	0.87	5.00	0.64	3.59	0.62
	U-W (S-C)	2.22	5.00	1.67	3.59	1.59
	W-V	—	5.00	—	3.59	—

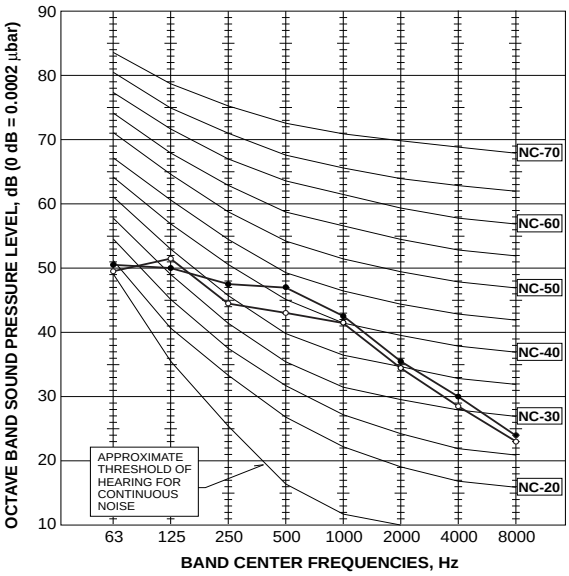
Unit		PU/PUH-P4YGAA.UK PU/PUH-P4YGAA$_1$.UK	PU/PUH-P5YGAA.UK PU/PUH-P5YGAA$_1$.UK **(at 25°C)**	PU/PUH-P6YGAA.UK PU/PUH-P6YGAA$_1$.UK **(at 25°C)**	PU/PUH-P5YGAA$_2$.UK **(at 20°C)**	PU/PUH-P6YGAA$_2$.UK **(at 20°C)**
Compressor model		NE56YDKMT	ZR61KCE-TFD ZR61KCW-TFD	ZR72KCW-TFD	BE82YADMT	BE96YADMT
Winding Resistance (Ω)	U-V (R-C)	3.32	0.628 ~ 0.722	0.517	2.123	1.963
	U-W (S-C)	3.32	0.628 ~ 0.722	0.517	2.123	1.963
	W-V	3.32	0.628 ~ 0.722	0.517	2.123	1.963

6-3. NOISE CRITERION CURVES



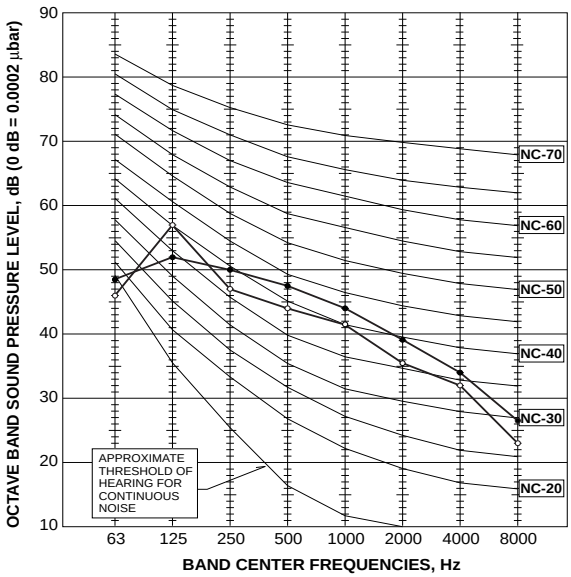
PUH-P1VGAA.UK
PUH-P1VGAA$_1$.UK

MODE	SPL(dB)	LINE
COOLING	46	○—○
HEATING	48	●—●



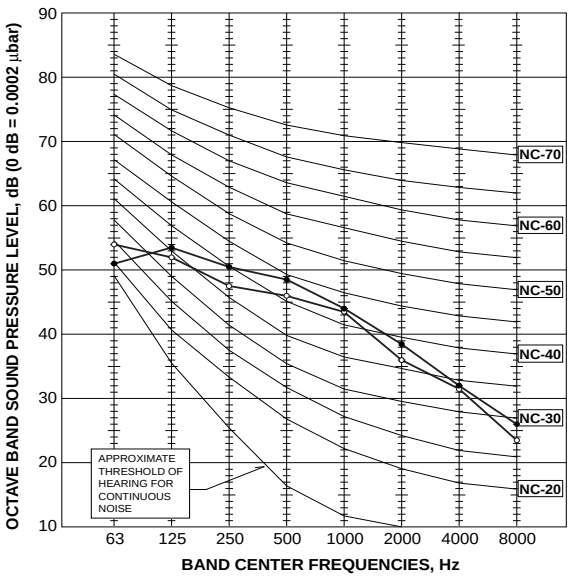
PU/PUH-P1.6VGAA.UK
PU/PUH-P1.6VGAA$_1$.UK
PU/PUH-P1.6YGAA.UK
PU/PUH-P1.6YGAA$_1$.UK

MODE	SPL(dB)	LINE
COOLING	47	○—○
HEATING	49	●—●



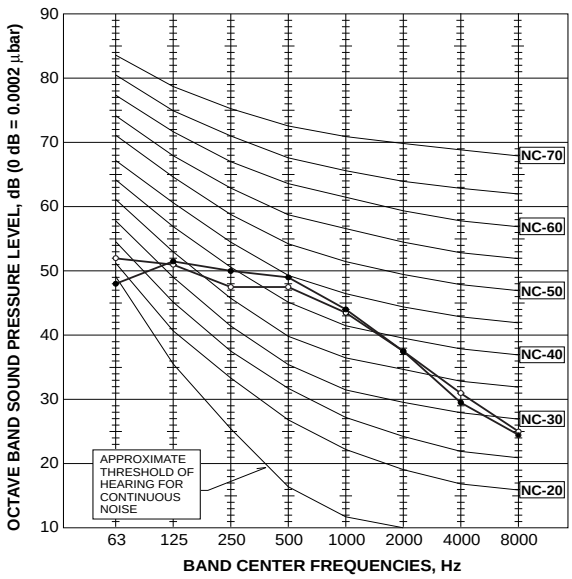
PU/PUH-P2VGAA.UK
PU/PUH-P2VGAA$_1$.UK
PU/PUH-P2YGAA.UK
PU/PUH-P2YGAA$_1$.UK

MODE	SPL(dB)	LINE
COOLING	48	○—○
HEATING	49	●—●



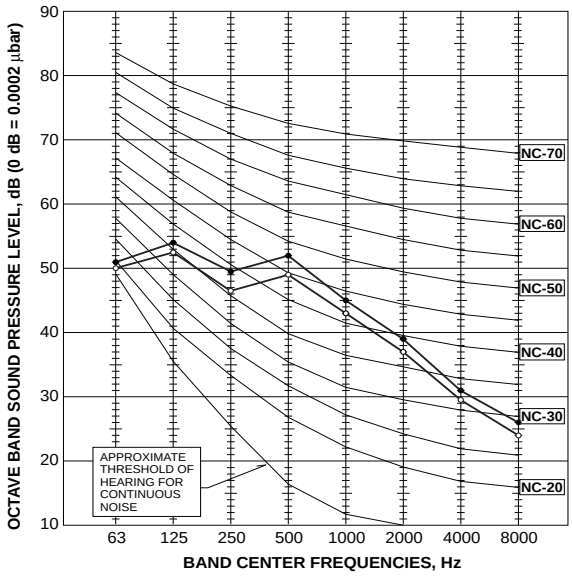
PU/PUH-P2.5VGAA.UK
PU/PUH-P2.5VGAA$_1$.UK
PU/PUH-P2.5YGAA.UK
PU/PUH-P2.5YGAA$_1$.UK

MODE	SPL(dB)	LINE
COOLING	48	○—○
HEATING	50	●—●



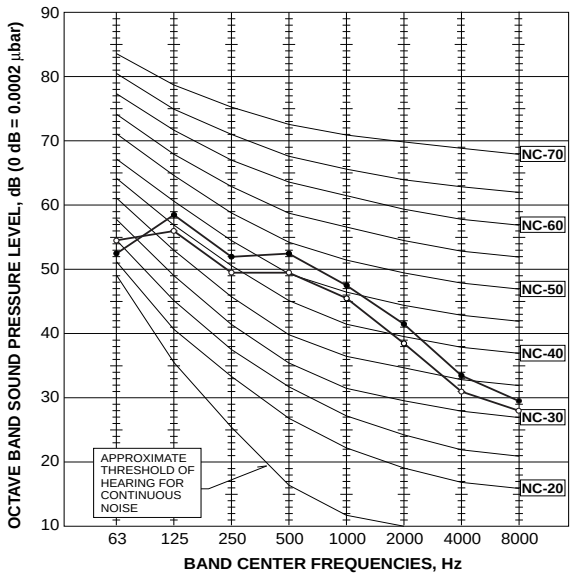
PU/PUH-P3VGAA.UK
PU/PUH-P3VGAA1.UK
PU/PUH-P3YGAA.UK
PU/PUH-P3YGAA1.UK

MODE	SPL(dB)	LINE
COOLING	49	○——○
HEATING	51	●——●



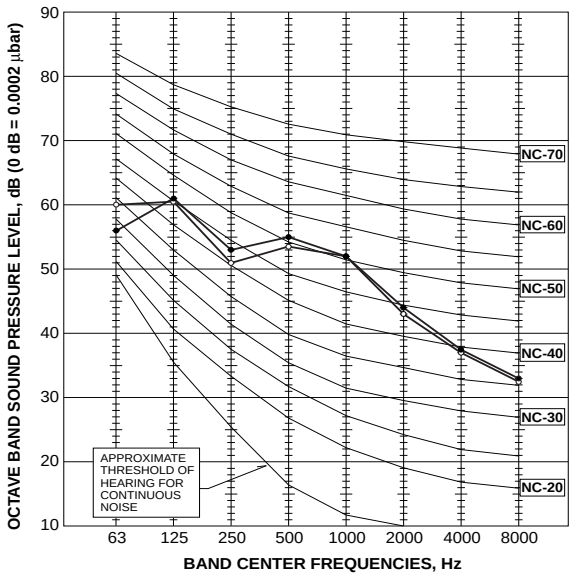
PU/PUH-P4VGAA.UK
PU/PUH-P4VGAA1.UK
PU/PUH-P4YGAA.UK
PU/PUH-P4YGAA1.UK

MODE	SPL(dB)	LINE
COOLING	51	○——○
HEATING	53	●——●



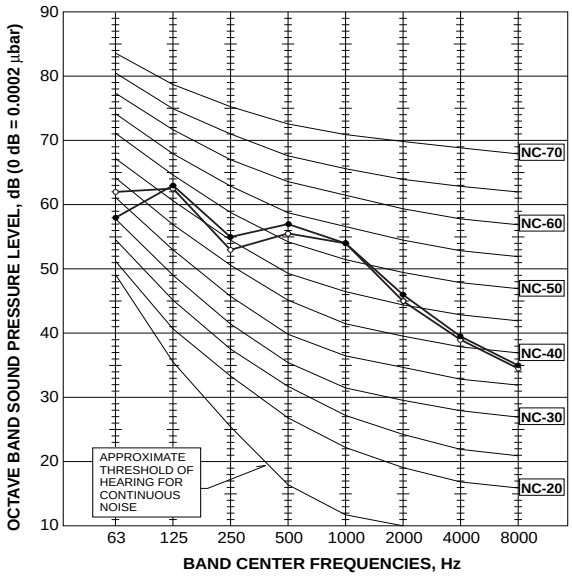
PU/PUH-P5YGAA.UK
PU/PUH-P5YGAA1.UK
PU/PUH-P5YGAA2.UK

MODE	SPL(dB)	LINE
COOLING	55	○——○
HEATING	56	●——●



PU/PUH-P6YGAA.UK
PU/PUH-P6YGAA1.UK
PU/PUH-P6YGAA2.UK

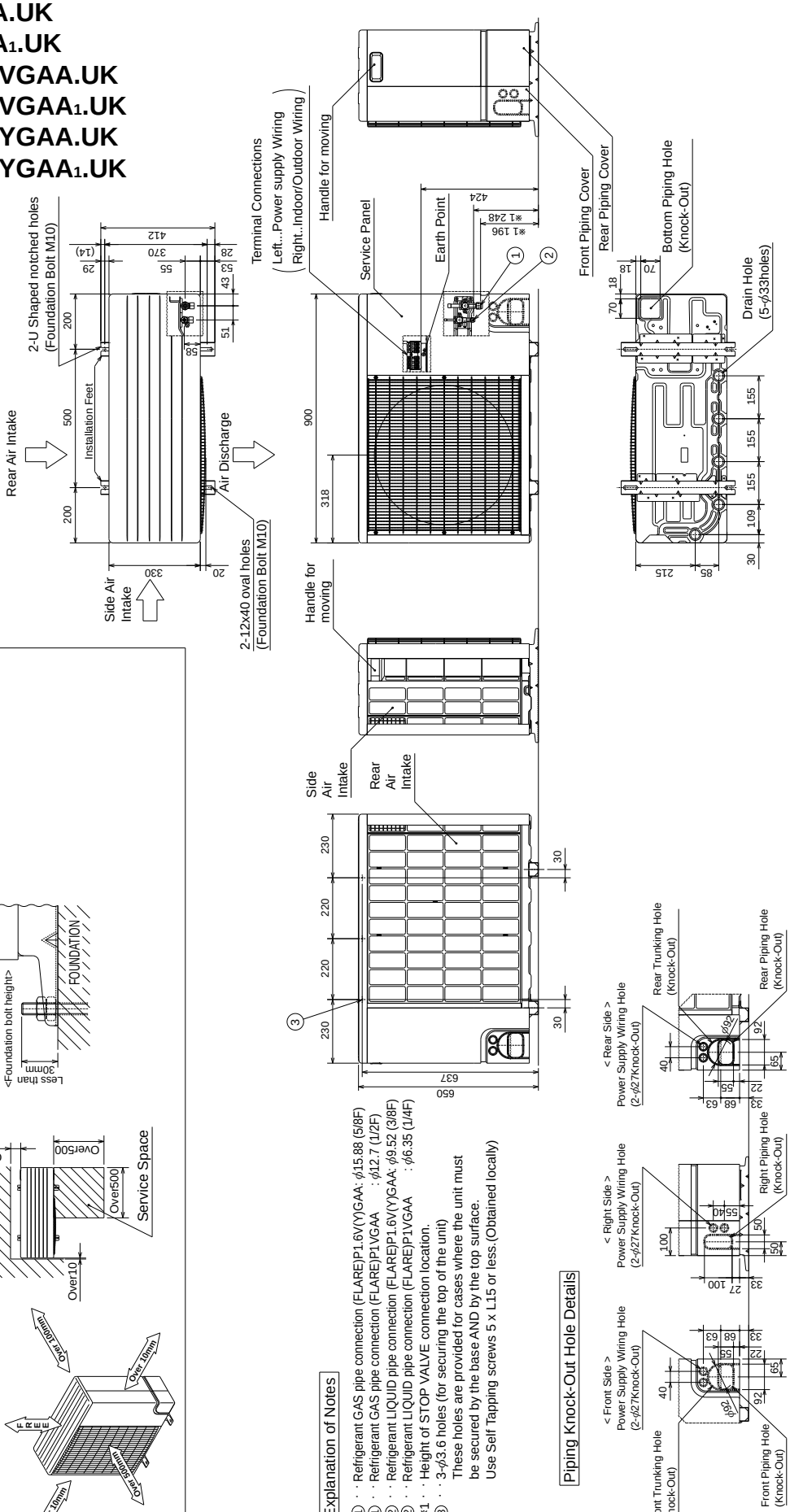
MODE	SPL(dB)	LINE
COOLING	57	○——○
HEATING	58	●——●



7 OUTLINES AND DIMENSIONS

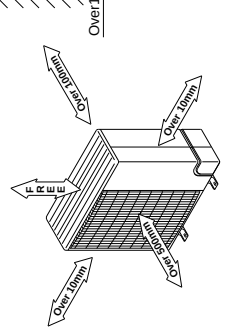
PUH-P1VGAA.UK
PUH-P1VGAA1.UK
PU/PUH-P1.6VGAA.UK
PU/PUH-P1.6VGAA1.UK
PU/PUH-P1.6YGAA.UK
PU/PUH-P1.6YGAA1.UK

Unit : mm



1 FREE SPACE (Around the Unit)

The diagram below shows a basic example. Explanation of particular details are given in the installation manuals etc.

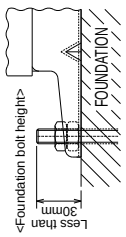


2 SERVICE SPACE

Dimensions of space needed for service access are shown in the below diagram.

3 FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10) bolts. (Bolts and washers must be purchased locally).



4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: Front, Right, Rear and Below.

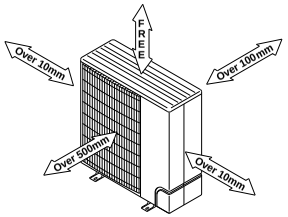
Explanation of Notes

① · · Refrigerant GAS pipe connection (FLARE)P1.6V(Y)GAA: ϕ15.88 (5/8F)
① · · Refrigerant GAS pipe connection (FLARE)P1VGAA : ϕ12.7 (1/2F)
② · · Refrigerant LIQUID pipe connection (FLARE)P1.6V(Y)GAA: ϕ9.52 (3/8F)
② · · Refrigerant LIQUID pipe connection (FLARE)P1VGAA : ϕ6.35 (1/4F)
※1 · · Height of STOP VALVE connection location.
③ · · 3-ϕ3.6 holes (for securing the top of the unit)
These holes are provided for cases where the unit must be secured by the base AND by the top surface.
Use Self Tapping screws 5 x L15 or less.(Obtained locally)

PU/PUH-P2VGAA.UK
PU/PUH-P2VGAA1.UK
PU/PUH-P2YGAA.UK
PU/PUH-P2YGAA1.UK
PU/PUH-P2.5VGAA.UK
PU/PUH-P2.5VGAA1.UK
PU/PUH-P2.5YGAA.UK
PU/PUH-P2.5YGAA1.UK
PU/PUH-P3VGAA.UK
PU/PUH-P3VGAA1.UK
PU/PUH-P3YGAA.UK
PU/PUH-P3YGAA1.UK

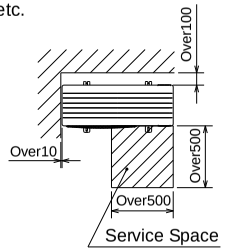
1 FREE SPACE (Around the Unit)

The diagram below shows a basic example.
Explanation of particular details are given in the installation manuals etc.



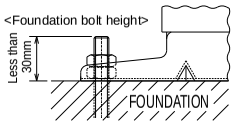
2 SERVICE SPACE

Dimensions of space needed for service access are shown in the below diagram.



3 FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10) bolts. (Bolts and washers must be purchased locally).

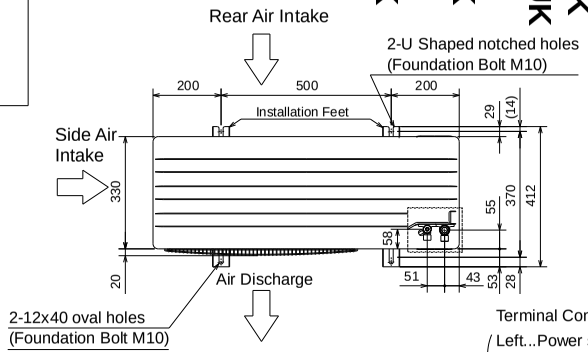


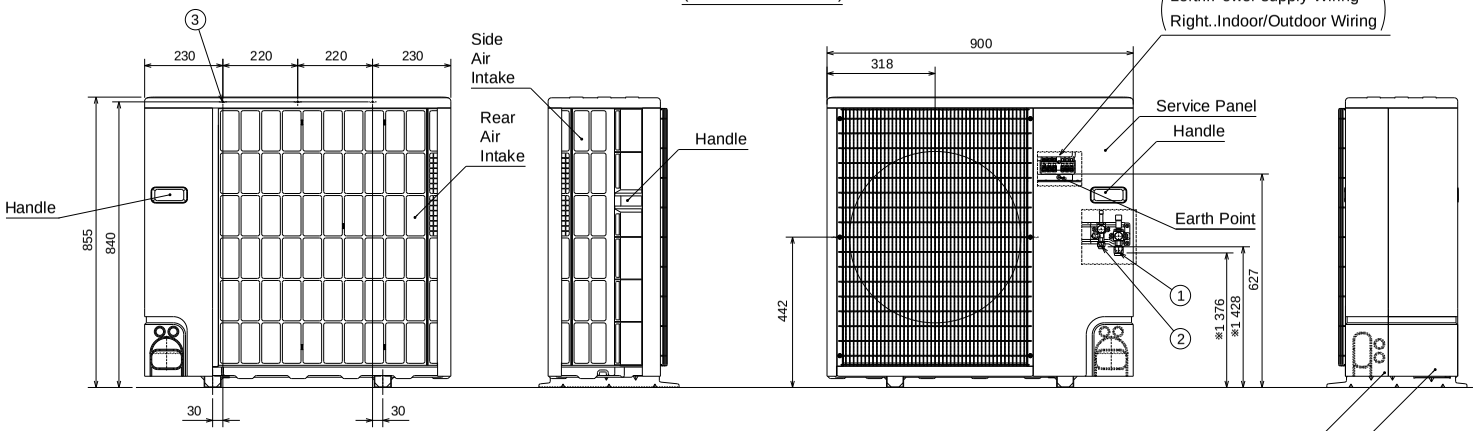
4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: Front, Right, Rear and Below.

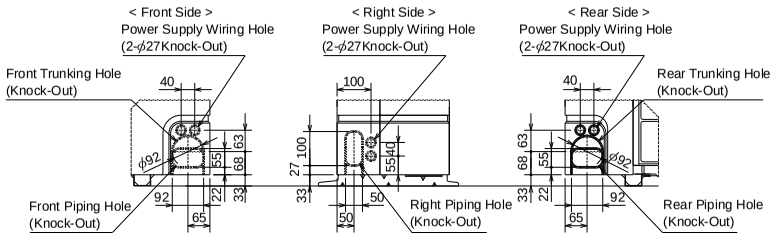
Explanation of Notes

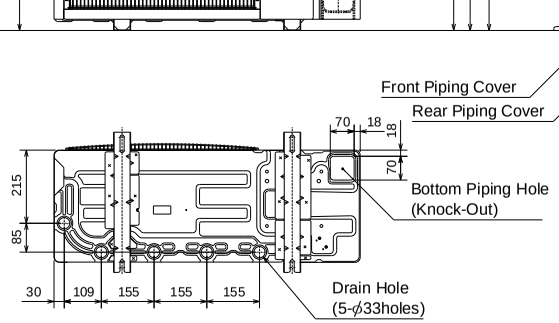
① · · · Refrigerant GAS pipe connection (FLARE) ϕ15.88 (5/8F)
② · · · Refrigerant LIQUID pipe connection (FLARE) ϕ9.52 (3/8F)
※1 · · · Height of STOP VALVE connection location.
③ · · · 3-ϕ3.6 holes (for securing the top of the unit)
These holes are provided for cases where the unit must be secured by the base AND by the top surface together.
Use Self Tapping screws 5 x L15 or less.
(Obtained Locally)





Piping Knock-Out Hole Details

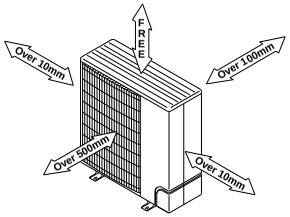




Unit : mm

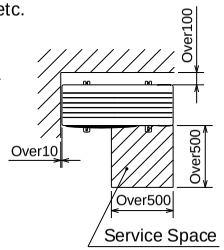
1 FREE SPACE (Around the Unit)

The diagram below shows a basic example.
Explanation of particular details are given in the installation manuals etc.



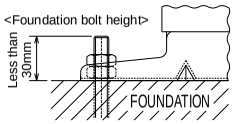
2 SERVICE SPACE

Dimensions of space needed for service access are shown in the below diagram.



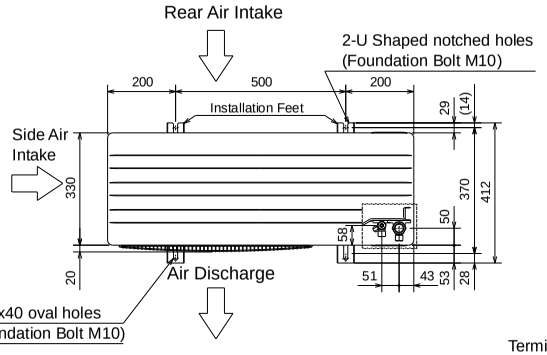
3 FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10) bolts. (Bolts and washers must be purchased locally).



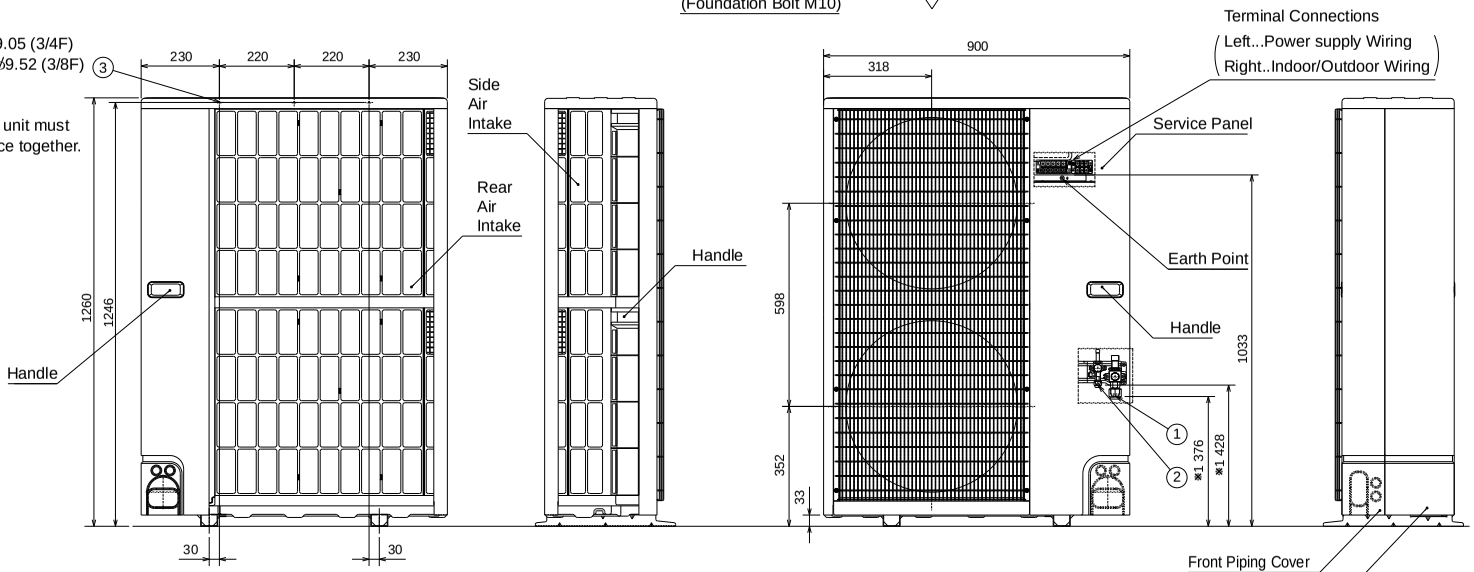
4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: Front, Right, Rear and Below.

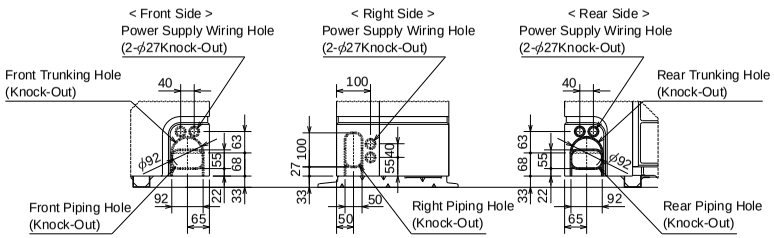


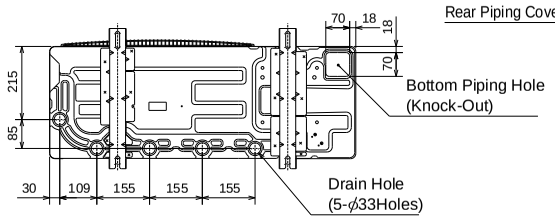
Explanation of Notes

① · · · Refrigerant GAS pipe connection(FLARE) ϕ19.05 (3/4F)
② · · · Refrigerant LIQUID pipe connection(FLARE) ϕ9.52 (3/8F)
※1 · · · Height of STOP VALVE connection location.
③ · · · 3-ϕ3.6 holes (for securing the top of the unit)
These holes are provided for cases where the unit must be secured by the base AND by the top surface together.
Use Self Tapping screws 5 x L15 or less.
(Obtained Locally)



Piping Knock-Out Hole Details

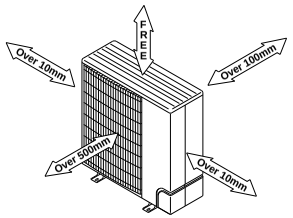




Unit : mm

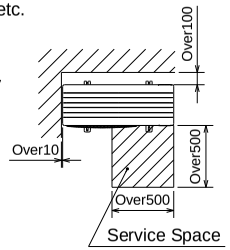
1 FREE SPACE (Around the Unit)

The diagram below shows a basic example.
Explanation of particular details are given in the installation manuals etc.



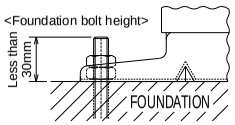
2 SERVICE SPACE

Dimensions of space needed for service access are shown in the below diagram.



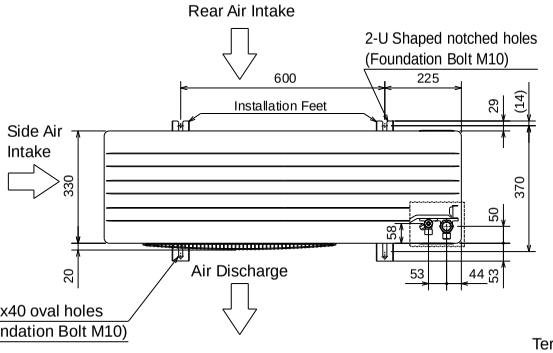
3 FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10) bolts. (Bolts and washers must be purchased locally).



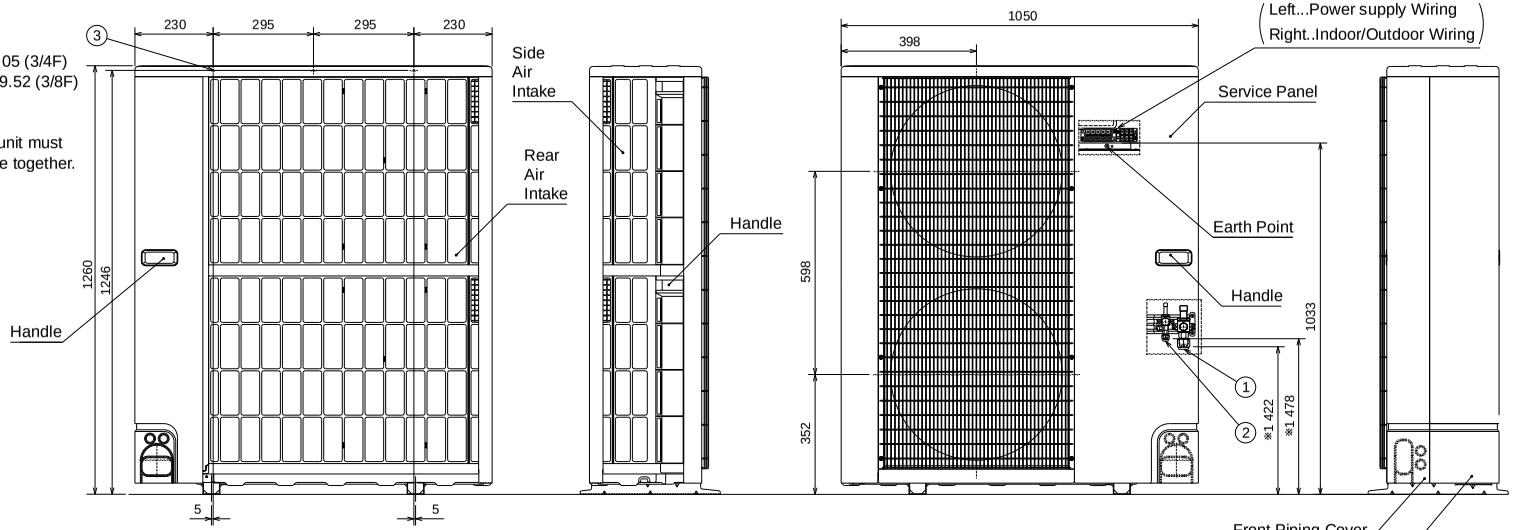
4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: Front, Right, Rear and Below.

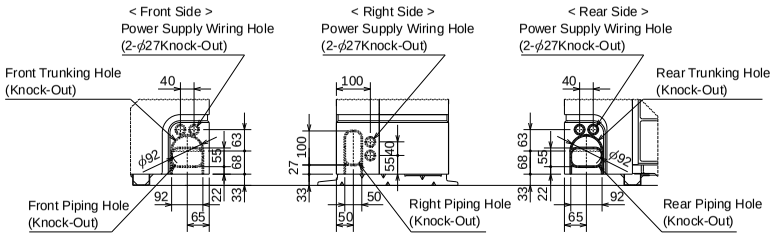


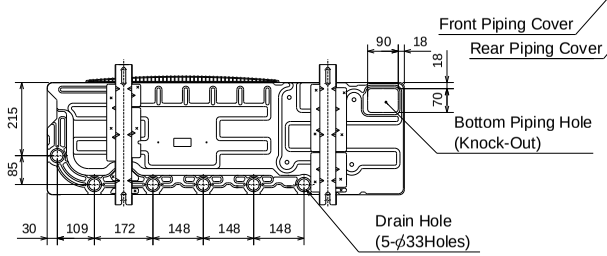
Explanation of Notes

①・・・ Refrigerant GAS pipe connection(FLARE) ϕ19.05 (3/4F)
②・・・ Refrigerant LIQUID pipe connection(FLARE) ϕ9.52 (3/8F)
※1・・・ Height of STOP VALVE connection location.
③・・・ 3-ϕ3.6 holes (for securing the top of the unit)
These holes are provided for cases where the unit must be secured by the base AND by the top surface together.
Use Self Tapping screws 5 x L15 or less.
(Obtained Locally)



Piping Knock-Out Hole Details



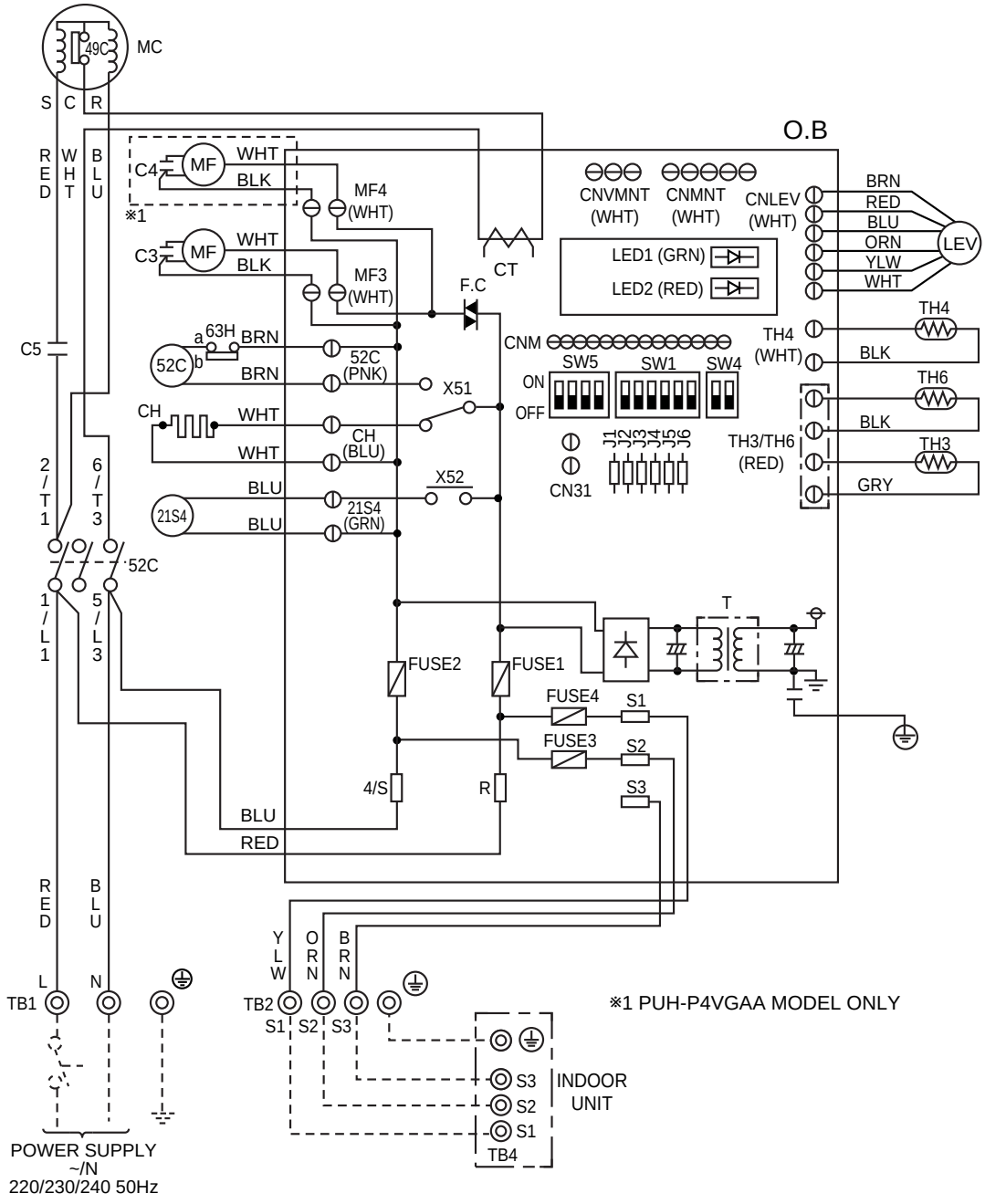


Unit : mm

8 WIRING DIAGRAM

PUH-P1, P1.6, P2, P2.5, P3, P4VGAA.UK
PUH-P1, P1.6, P2, P2.5, P3, P4VGAA1.UK

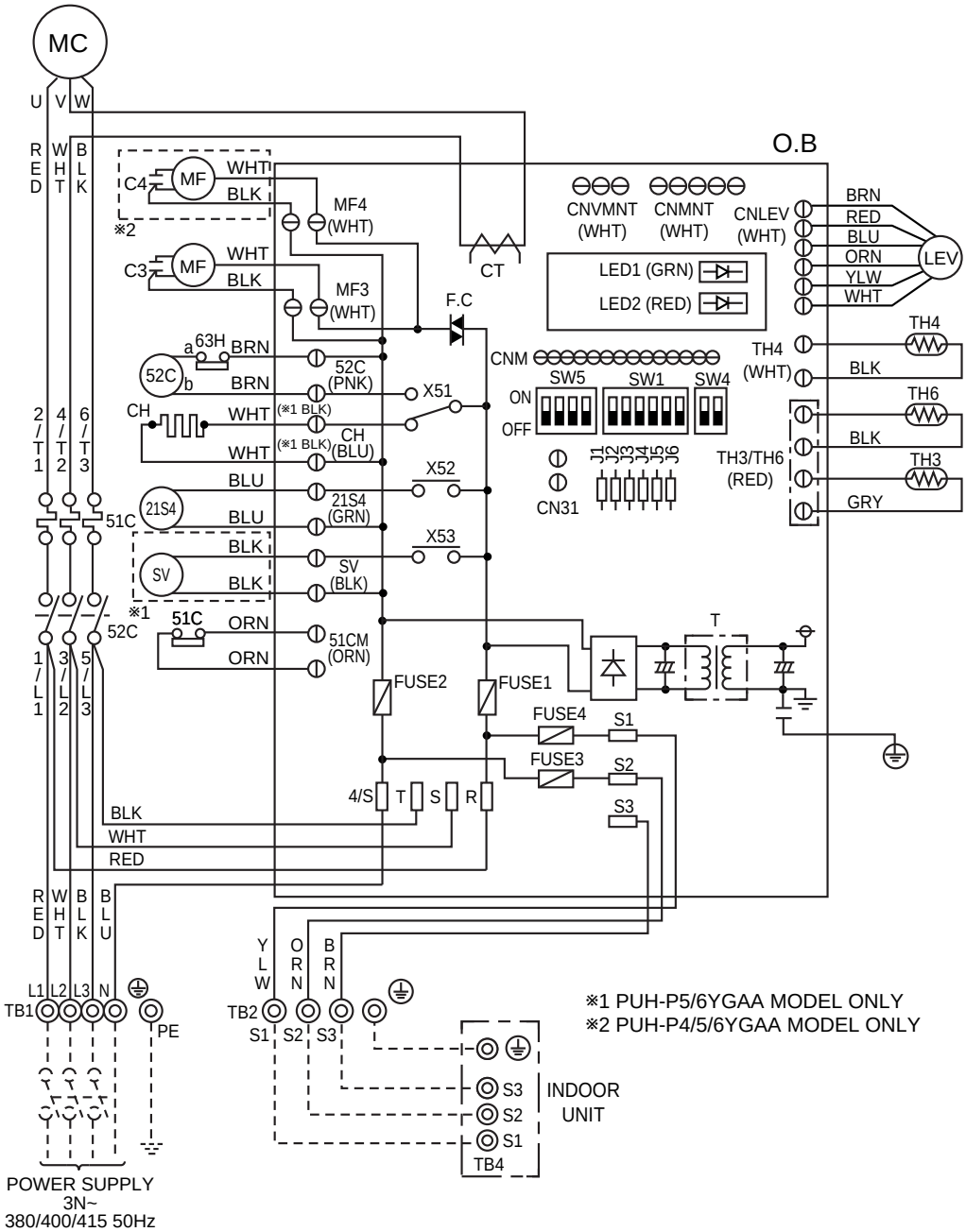
SYMBOL	NAME		SYMBOL	NAME
MC	COMPRESSOR (INNER THERMOSTAT)		O.B	OUTDOOR CONTROLLER BOARD
MF	FAN MOTOR (INNER THERMOSTAT)		FUSE1 (O.B)	FUSE (6.3A)
TH3	THERMISTOR	LIQUID TEMP	FUSE2 (O.B)	FUSE (6.3A)
TH4		DISCHARGE TEMP	FUSE3 (O.B)	FUSE (6.3A)
TH6		COND. / EVA. TEMP	FUSE4 (O.B)	FUSE (6.3A)
C3	MF CAPACITOR		X51 (O.B)	MC/CH RELAY
C4	MF CAPACITOR		X52 (O.B)	21S4 RELAY
C5	MC CAPACITOR		F.C (O.B)	FAN CONTROLLER
CH	CRANKCASE HEATER		SW1 (O.B)	GROUP NUMBER ADDRESS
52C	MC CONTACTOR		SW4 (O.B)	TEST RUN
21S4	4-WAY VALVE SOLENOID COIL		SW5 (O.B)	FUNCTION SELECTION
63H	HIGH PRESSURE PROTECT SWITCH		J1~J6 (O.B)	MODEL SELECTION
49C	INNER THERMOSTAT FOR MC		T (O.B)	TRANSFORMER
TB1	TERMINAL BLOCK		CT (O.B)	CURRENT TRANS
LEV	LINEAR EXPANSION VALVE		LED1 (O.B)	OPERATION CHECK DISPLAY LED
TB2	TERMINAL BLOCK		LED2 (O.B)	OPERATION CHECK DISPLAY LED
			CN31 (O.B)	EMERGENCY OPERATION CONNECTER



<Notes when servicing>
Some fastening terminals have a lock mechanism: When removing the fastening terminal, push the projection (locking lever) on the terminal with your finger and pull it out.

PUH-P1.6, P2, P2.5, P3, P4, P5, P6YGAA.UK
PUH-P1.6, P2, P2.5, P3, P4, P5, P6YGAA$_1$.UK

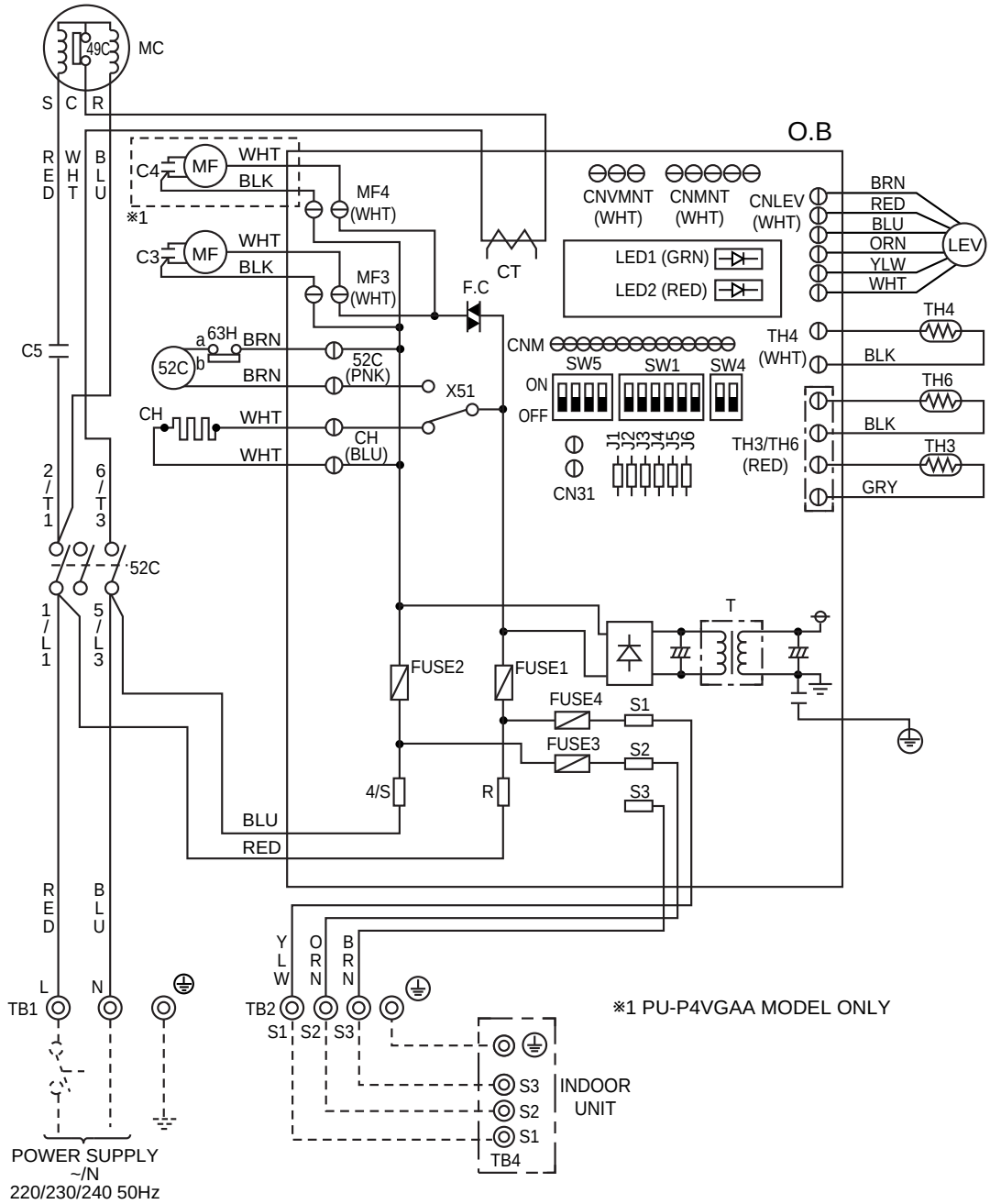
SYMBOL	NAME		SYMBOL	NAME
MC	COMPRESSOR		O.B	OUTDOOR CONTROLLER BOARD
MF	FAN MOTOR (INNER THERMOSTAT)		FUSE1 (O.B)	FUSE (6.3A)
TH3	THERMISTOR	LIQUID TEMP	FUSE2 (O.B)	FUSE (6.3A)
TH4		DISCHARGE TEMP	FUSE3 (O.B)	FUSE (6.3A)
TH6		COND. / EVA. TEMP	FUSE4 (O.B)	FUSE (6.3A)
C3	MF CAPACITOR		X51 (O.B)	MC/CH RELAY
C4	MF CAPACITOR		X52 (O.B)	21S4 RELAY
CH	CRANKCASE HEATER		X53 (O.B)	SV RELAY
52C	MC CONTACTOR		F.C (O.B)	FAN CONTROLLER
21S4	4-WAY VALVE SOLENOID COIL		SW1 (O.B)	GROUP NUMBER ADDRESS
SV	BYPASS VALVE SOLENOID COIL		SW4 (O.B)	TEST RUN
63H	HIGH PRESSURE PROTECT SWITCH		SW5 (O.B)	FUNCTION SELECTION
51C	THERMAL RELAY		J1~J6 (O.B)	MODEL SELECTION
TB1	TERMINAL BLOCK		T (O.B)	TRANSFORMER
LEV	LINEAR EXPANSION VALVE		CT (O.B)	CURRENT TRANS
TB2	TERMINAL BLOCK		LED1 (O.B)	OPERATION CHECK DISPLAY LED
			LED2 (O.B)	OPERATION CHECK DISPLAY LED
			CN31 (O.B)	EMERGENCY OPERATION CONNECTER



<Notes when servicing>
Some fastening terminals have a lock mechanism: When removing the fastening terminal, push the projection (locking lever) on the terminal with your finger and pull it out.

PU-P1.6, P2, P2.5, P3, P4VGAA.UK
PU-P1.6, P2, P2.5, P3, P4VGAA1.UK

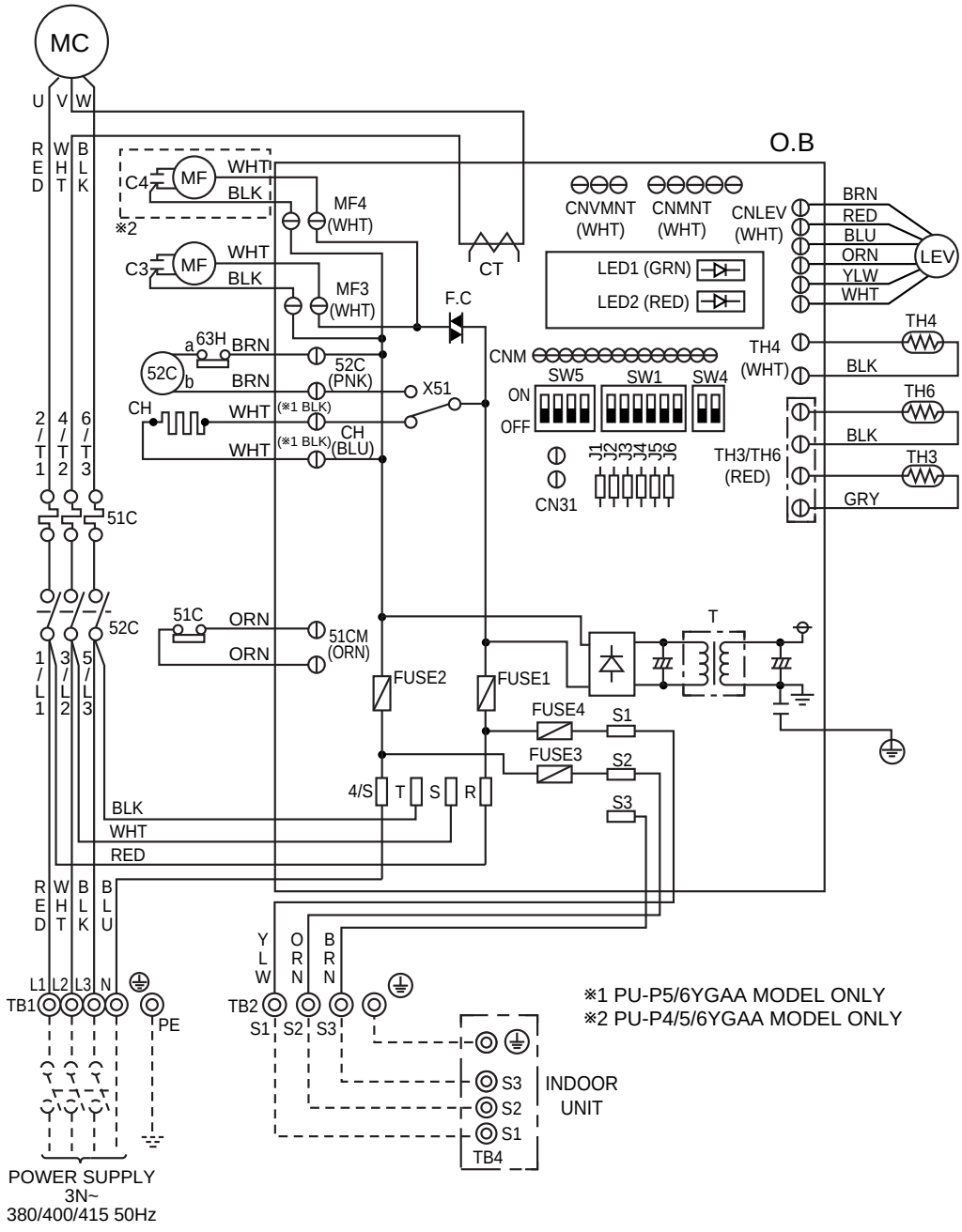
SYMBOL	NAME		SYMBOL	NAME
MC	COMPRESSOR (INNER THERMOSTAT)		O.B	OUTDOOR CONTROLLER BOARD
MF	FAN MOTOR (INNER THERMOSTAT)		FUSE1 (O.B)	FUSE (6.3A)
TH3	THERMISTOR	LIQUID TEMP	FUSE2 (O.B)	FUSE (6.3A)
TH4		DISCHARGE TEMP	FUSE3 (O.B)	FUSE (6.3A)
TH6		COND. / EVA. TEMP	FUSE4 (O.B)	FUSE (6.3A)
C3	MF CAPACITOR		X51 (O.B)	MC/CH RELAY
C4	MF CAPACITOR		F.C (O.B)	FAN CONTROLLER
C5	MC CAPACITOR		SW1 (O.B)	GROUP NUMBER ADDRESS
CH	CRANKCASE HEATER		SW4 (O.B)	TEST RUN
52C	MC CONTACTOR		SW5 (O.B)	FUNCTION SELECTION
63H	HIGH PRESSURE PROTECT SWITCH		J1~J6 (O.B)	MODEL SELECTION
49C	INNER THERMOSTAT FOR MC		T (O.B)	TRANSFORMER
TB1	TERMINAL BLOCK		CT (O.B)	CURRENT TRANS
LEV	LINEAR EXPANSION VALVE		LED1 (O.B)	OPERATION CHECK DISPLAY LED
TB2	TERMINAL BLOCK		LED2 (O.B)	OPERATION CHECK DISPLAY LED
			CN31 (O.B)	EMERGENCY OPERATION CONNECTER



<Notes when servicing>
Some fastening terminals have a lock mechanism: When removing the fastening terminal, push the projection (locking lever) on the terminal with your finger and pull it out.

PU-P1.6, P2, P2.5, P3, P4, P5, P6YGAA.UK
PU-P1.6, P2, P2.5, P3, P4, P5, P6YGAA1.UK

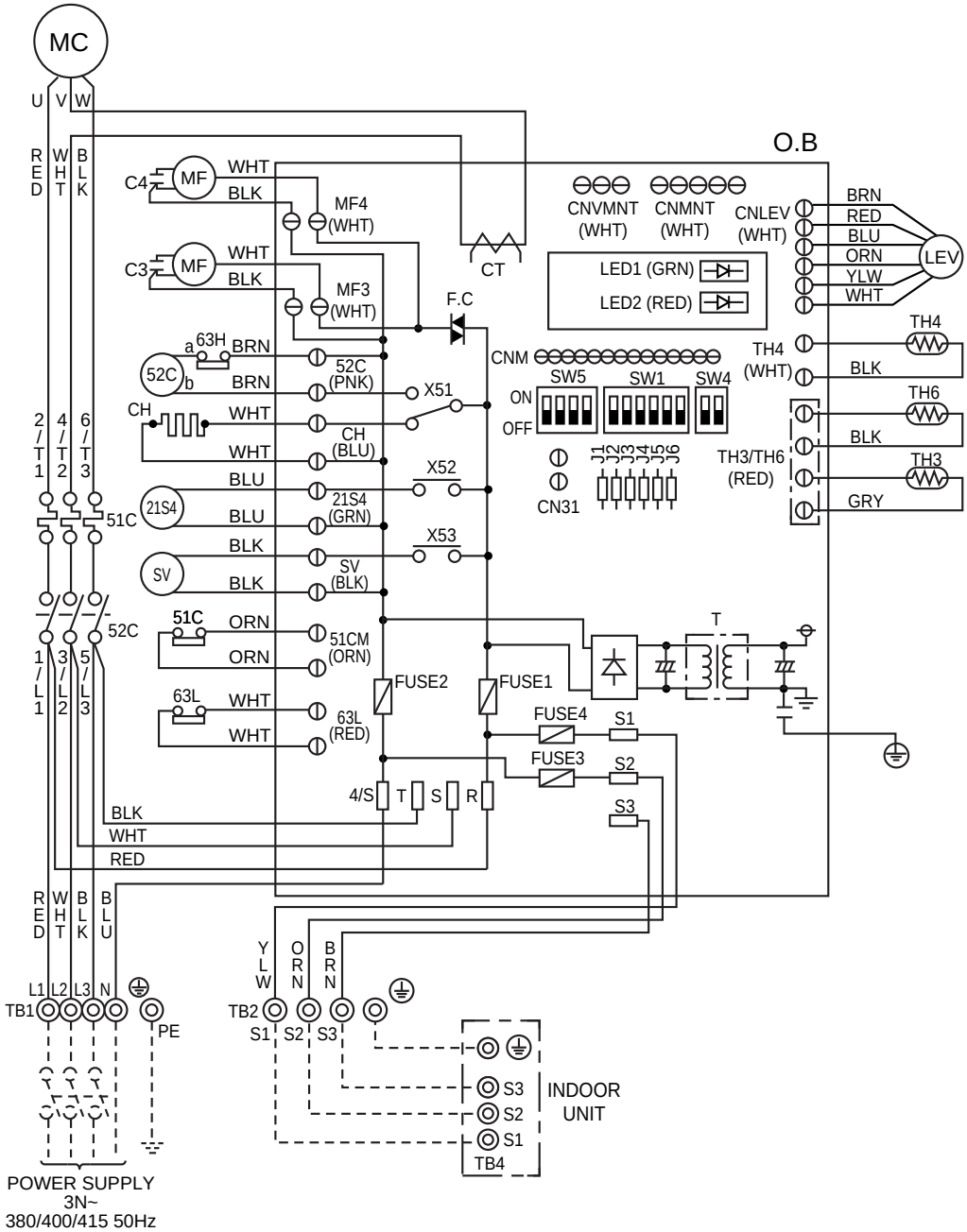
SYMBOL	NAME		SYMBOL	NAME
MC	COMPRESSOR		O.B	OUTDOOR CONTROLLER BOARD
MF	FAN MOTOR (INNER THERMOSTAT)		FUSE1 (O.B)	FUSE (6.3A)
TH3	THERMISTOR	LIQUID TEMP	FUSE2 (O.B)	FUSE (6.3A)
TH4		DISCHARGE TEMP	FUSE3 (O.B)	FUSE (6.3A)
TH6		COND. / EVA. TEMP	FUSE4 (O.B)	FUSE (6.3A)
C3	MF CAPACITOR		X51 (O.B)	MC/CH RELAY
C4	MF CAPACITOR		F.C (O.B)	FAN CONTROLLER
CH	CRANKCASE HEATER		SW1 (O.B)	GROUP NUMBER ADDRESS
52C	MC CONTACTOR		SW4 (O.B)	TEST RUN
63H	HIGH PRESSURE PROTECT SWITCH		SW5 (O.B)	FUNCTION SELECTION
51C	THERMAL RELAY		J1~J6 (O.B)	MODEL SELECTION
TB1	TERMINAL BLOCK		T (O.B)	TRANSFORMER
LEV	LINEAR EXPANSION VALVE		CT (O.B)	CURRENT TRANS
TB2	TERMINAL BLOCK		LED1 (O.B)	OPERATION CHECK DISPLAY LED
			LED2 (O.B)	OPERATION CHECK DISPLAY LED
			CN31 (O.B)	EMERGENCY OPERATION CONNECTER



<Notes when servicing>
Some fastening terminals have a lock mechanism: When removing the fastening terminal, push the projection (locking lever) on the terminal with your finger and pull it out.

PUH-P5YGAA2.UK
PUH-P6YGAA2.UK

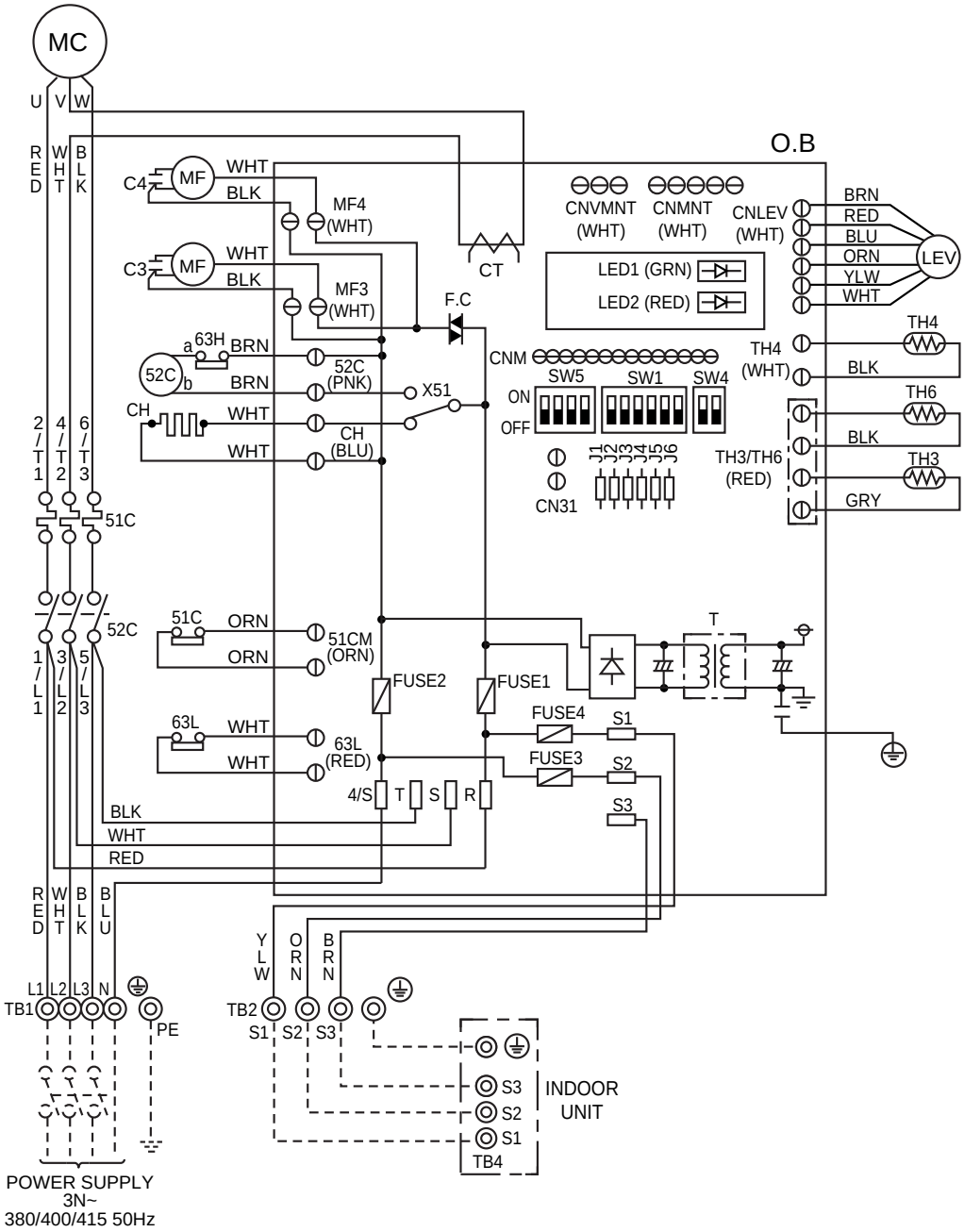
SYMBOL	NAME		SYMBOL	NAME
MC	COMPRESSOR		O.B	OUTDOOR CONTROLLER BOARD
MF	FAN MOTOR (INNER THERMOSTAT)		FUSE1 (O.B)	FUSE (6.3A)
TH3	THERMISTOR	LIQUID TEMP	FUSE2 (O.B)	FUSE (6.3A)
TH4		DISCHARGE TEMP	FUSE3 (O.B)	FUSE (6.3A)
TH6		COND. / EVA. TEMP	FUSE4 (O.B)	FUSE (6.3A)
C3	MF CAPACITOR		X51 (O.B)	MC/CH RELAY
C4	MF CAPACITOR		X52 (O.B)	21S4 RELAY
CH	CRANKCASE HEATER		X53 (O.B)	SV RELAY
52C	MC CONTACTOR		F.C (O.B)	FAN CONTROLLER
21S4	4-WAY VALVE SOLENOID COIL		SW1 (O.B)	GROUP NUMBER ADDRESS
SV	BYPASS VALVE SOLENOID COIL		SW4 (O.B)	TEST RUN
63H	HIGH PRESSURE PROTECT SWITCH		SW5 (O.B)	FUNCTION SELECTION
51C	THERMAL RELAY		J1~J6 (O.B)	MODEL SELECTION
TB1	TERMINAL BLOCK		T (O.B)	TRANSFORMER
LEV	LINEAR EXPANSION VALVE		CT (O.B)	CURRENT TRANS
TB2	TERMINAL BLOCK		LED1 (O.B)	OPERATION CHECK DISPLAY LED
63L	LOW PRESSURE PROTECT SWITCH		LED2 (O.B)	OPERATION CHECK DISPLAY LED
			CN31 (O.B)	EMERGENCY OPERATION CONNECTER



<Notes when servicing>
Some fastening terminals have a lock mechanism: When removing the fastening terminal, push the projection (locking lever) on the terminal with your finger and pull it out.

PU-P5YGAA2.UK
PU-P6YGAA2.UK

SYMBOL	NAME		SYMBOL	NAME
MC	COMPRESSOR		O.B	OUTDOOR CONTROLLER BOARD
MF	FAN MOTOR (INNER THERMOSTAT)		FUSE1 (O.B)	FUSE (6.3A)
TH3	THERMISTOR	LIQUID TEMP	FUSE2 (O.B)	FUSE (6.3A)
TH4		DISCHARGE TEMP	FUSE3 (O.B)	FUSE (6.3A)
TH6		COND. / EVA. TEMP	FUSE4 (O.B)	FUSE (6.3A)
C3	MF CAPACITOR		X51 (O.B)	MC/CH RELAY
C4	MF CAPACITOR		F.C (O.B)	FAN CONTROLLER
CH	CRANKCASE HEATER		SW1 (O.B)	GROUP NUMBER ADDRESS
52C	MC CONTACTOR		SW4 (O.B)	TEST RUN
63H	HIGH PRESSURE PROTECT SWITCH		SW5 (O.B)	FUNCTION SELECTION
51C	THERMAL RELAY		J1~J6 (O.B)	MODEL SELECTION
TB1	TERMINAL BLOCK		T (O.B)	TRANSFORMER
LEV	LINEAR EXPANSION VALVE		CT (O.B)	CURRENT TRANS
TB2	TERMINAL BLOCK		LED1 (O.B)	OPERATION CHECK DISPLAY LED
63L	LOW PRESSURE PROTECT SWITCH		LED2 (O.B)	OPERATION CHECK DISPLAY LED
			CN31 (O.B)	EMERGENCY OPERATION CONNECTER

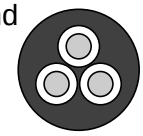
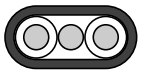
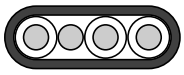
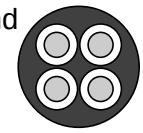


<Notes when servicing>
Some fastening terminals have a lock mechanism: When removing the fastening terminal, push the projection (locking lever) on the terminal with your finger and pull it out.

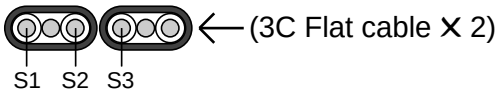
9 WIRING SPECIFICATIONS

WIRING SPECIFICATIONS FOR 220~240V 50Hz (INDOOR-OUTDOOR CONNECTING CABLE)

PU/PUH-P1VGAA.UK~P6YGAA.UK
PU/PUH-P1VGAA$_1$.UK~P6YGAA$_1$.UK
PU/PUH-P5VGAA$_2$.UK~P6YGAA$_2$.UK
(Except PUH-8YE,PUH-10YE)

Cross section of cable	Wire size (mm^2)	Number of wires	Polarity	L(m) ✻6
Round 	2.5	3	Clockwise : S1-S2-S3 ※ Pay attention to stripe of yellow and green	(50) ✻2
Flat 	2.5	3	Not applicable (Because center wire has no cover finish)	Not applicable ✻5
Flat 	1.5	4	From left to right : S1-Open-S2-S3	(45) ✻3
Round 	2.5	4	Clockwise : S1-S2-S3-Open ※ Connect S1 and S3 to the opposite angle	60 ✻4

✻1 : Power supply cords of appliances shall not be lighter than design 245 IEC or 227 IEC.
✻2 : In case that cable with stripe of yellow and green is available.
✻3 : In case of regular polarity connection (S1-S2-S3), wire size is 1.5mm^2.
✻4 : In case of regular polarity connection (S1-S2-S3).
✻5 : In the flat cables are connected as this picture, they can be used up to 80m.

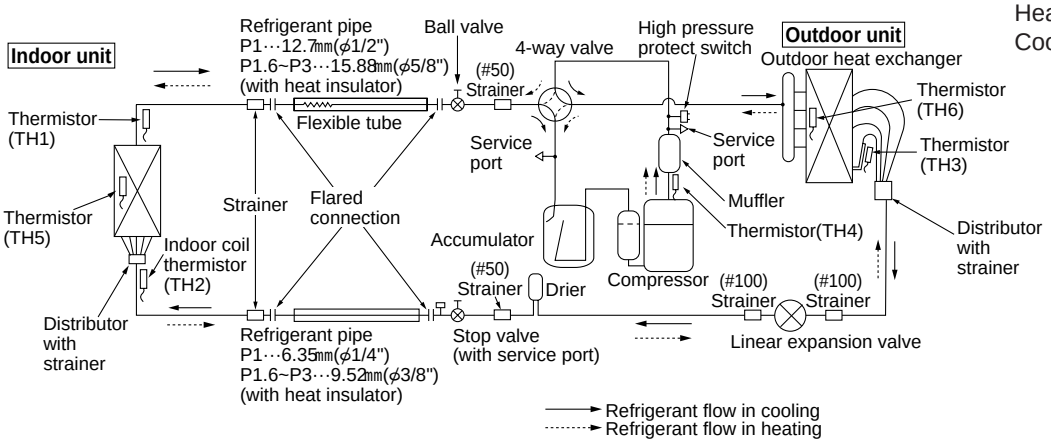


✻6 : Mentioned cable length is just a reference value.
It may be different depending on the condition of installation, Humidity or materials, etc.

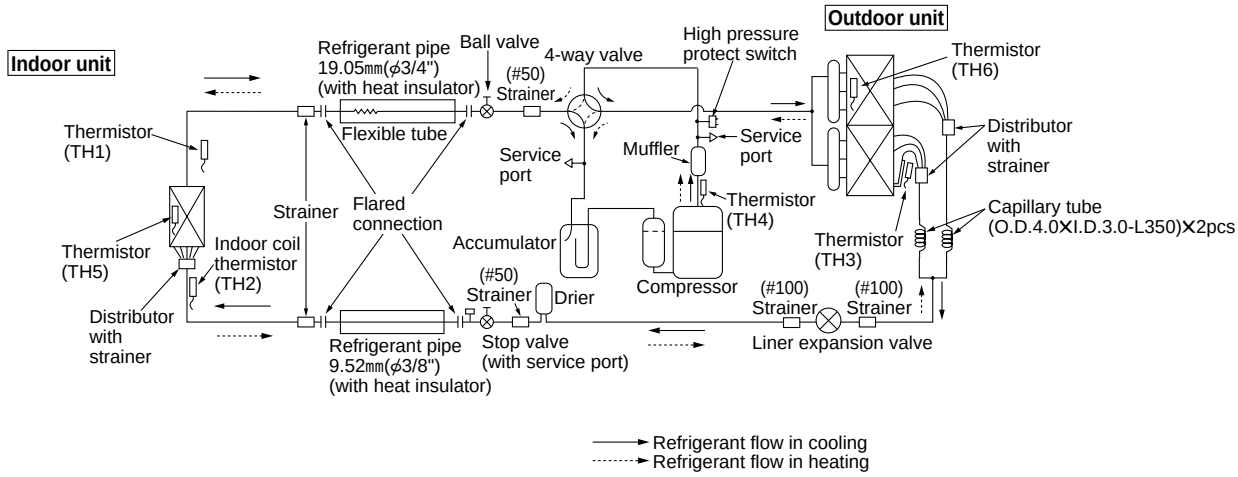
10 REFRIGERANT SYSTEM DIAGRAM

PUH-P1, P1.6, P2, P2.5, P3VGAA.UK
PUH-P1.6, P2, P2.5, P3YGAA.UK

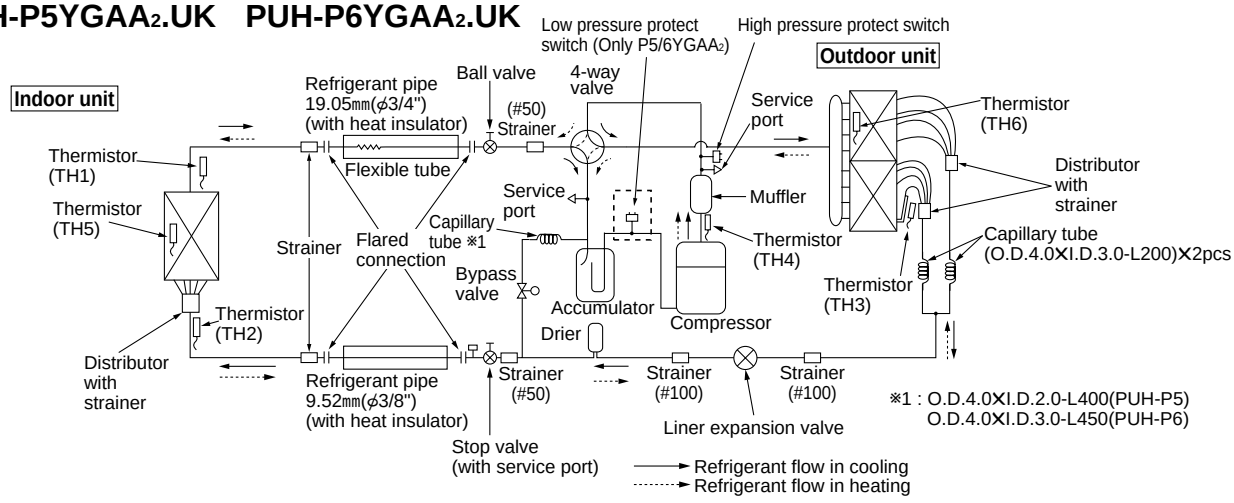
<4-way valve solenoid coil>
Heating : ON
Cooling : OFF



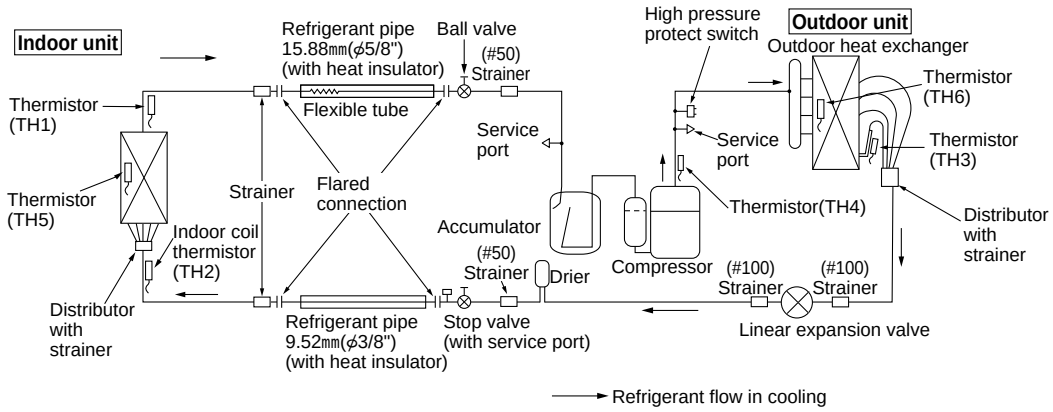
PUH-P4VGAA.UK
PUH-P4YGAA.UK



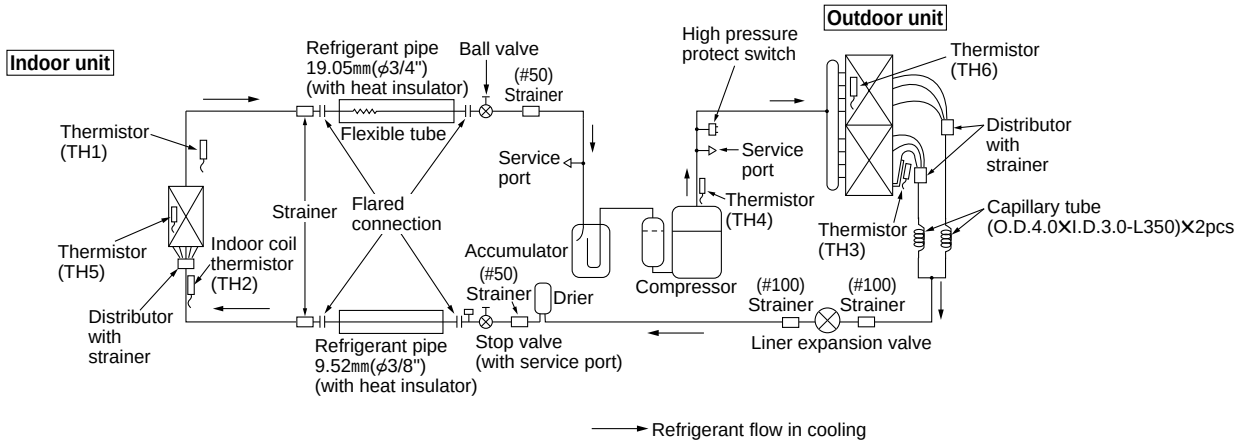
PUH-P5YGAA.UK PUH-P6YGAA.UK
PUH-P5YGAA1.UK PUH-P6YGAA1.UK
PUH-P5YGAA2.UK PUH-P6YGAA2.UK



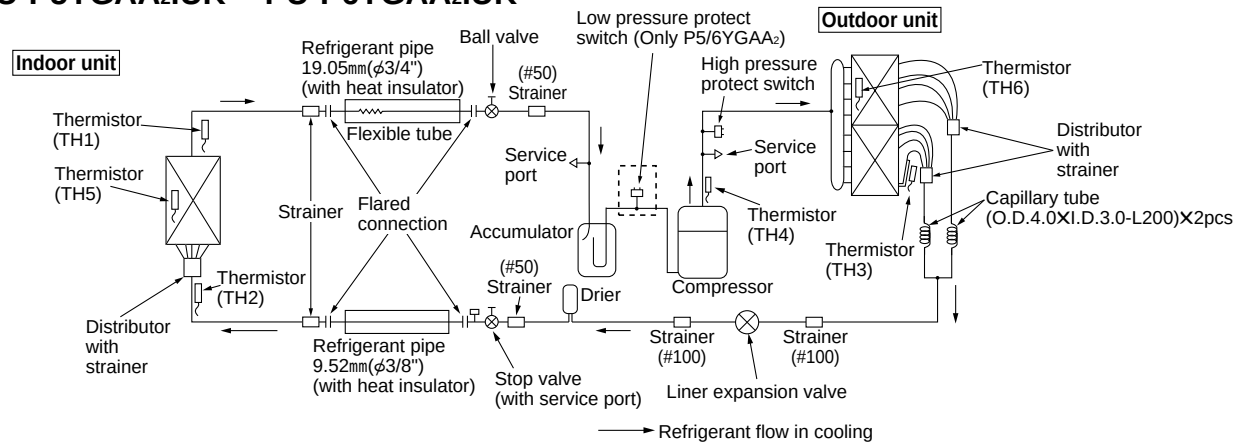
PU-P1.6, P2, P2.5, P3VGAA.UK
PU-P1.6, P2, P2.5, P3YGAA.UK



PU-P4VGAA.UK
PU-P4YGAA.UK

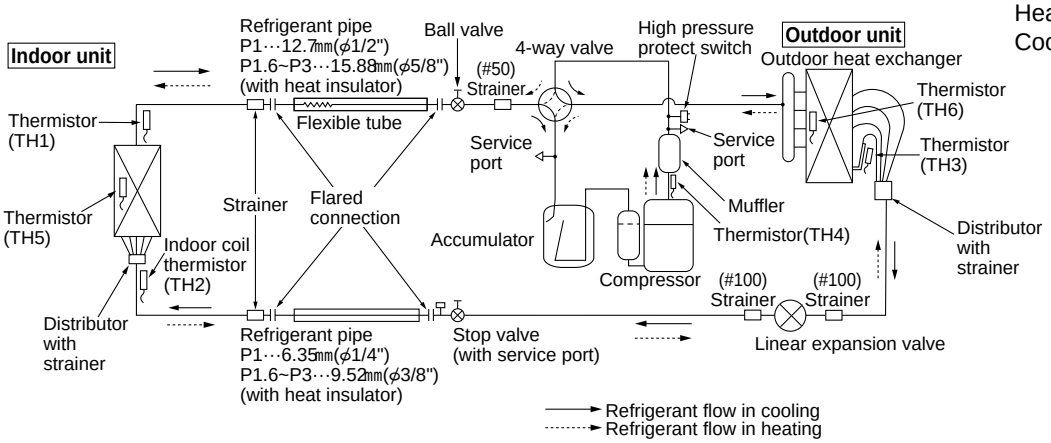


PU-P5YGAA.UK PU-P6YGAA.UK
PU-P5YGAA1.UK PU-P6YGAA1.UK
PU-P5YGAA2.UK PU-P6YGAA2.UK

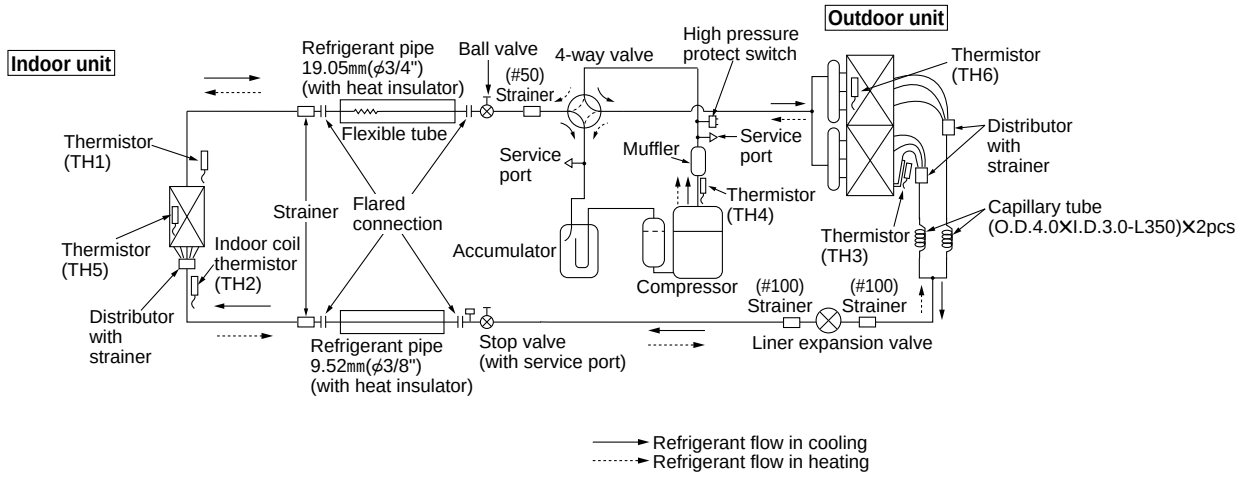


PUH-P1, P1.6, P2, P2.5, P3VGAA1.UK
PUH-P1.6, P2, P2.5, P3YGAA1.UK

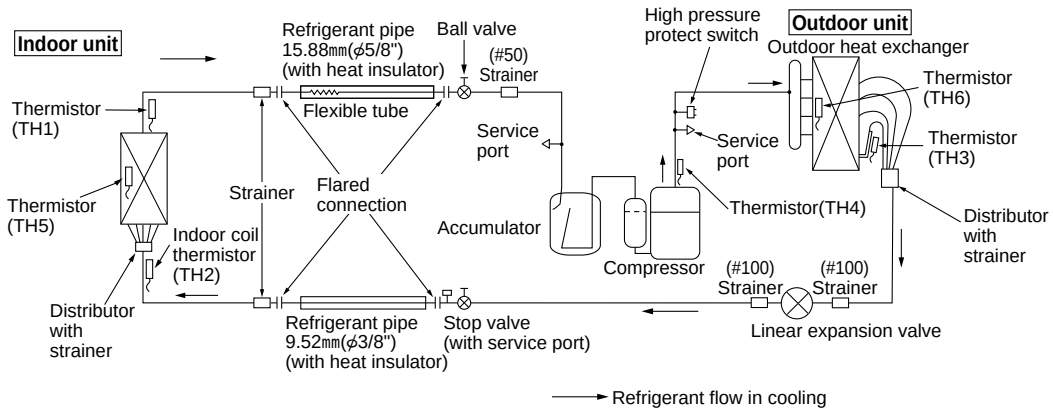
<4-way valve solenoid coil>
Heating : ON
Cooling : OFF



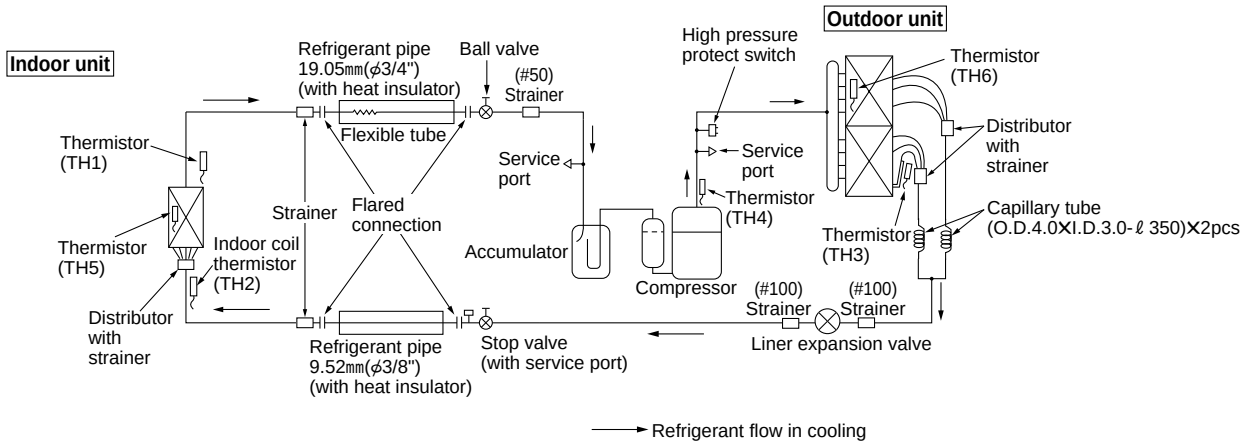
PUH-P4VGAA1.UK
PUH-P4YGAA1.UK



PU-P1.6, P2, P2.5, P3VGAA1.UK
PU-P1.6, P2, P2.5, P3YGAA1.UK



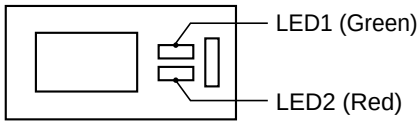
PU-P4VGAA1.UK
PU-P4YGAA1.UK



11 TROUBLESHOOTING

11-1. SELF-DIAGNOSTIC FUNCTION

- The blinking patterns of two LEDs—LED1(Green) and LED2(Red)—show the diagnoses of troubles in case of malfunction.
- By 7SEG indicator board indicates the operation mode and inspection types. For the details, refer to “OCT03 REVISED EDITION-C”.



Indication (O.B)		Error Name	Inspection method
LED1 (Green)	LED2 (Red)		
1 blink	1 blink	•Negative Phase detection •The wires of power supply and connecting wires of indoor / outdoor units are crossed with one another.	① Check if the wires of power supply are connected to their corresponding terminals on TB1. ② Check if the wirings are correct on power supply (TB1) and outdoor power supply board (TB2).
	2 blinks	•51CM connector open	① Check if the connectors of 51CM (51C) on outdoor controller board are disconnected. ② Check the continuity of connector 51CM (51C) by using a tester.
		•63L connector open	① Check connection of 63L(63L) connector on outdoor controller board. ② Check the 63L side of connecting wire. ③ Check refrigerant pressure. Charge additional refrigerant. Check continuity by tester. Replace outdoor controller board. ④ Replace outdoor controller board.
2 blinks	1 blink	•Indoor / outdoor unit connector mis-wiring •Excessive numbers of indoor units per an outdoor unit (five or more) •Mis-wiring of indoor / outdoor unit connection wires (crossed wiring or disconnection) •Start-up time is up	① Check if the wirings are correct on the connecting wires of indoor / outdoor units. ② Check if a single outdoor unit connects five or more indoor units.
	2 blinks	•Indoor / outdoor unit transmission error (Signal receiving error: Indoor controller side) •Indoor / outdoor unit transmission error (Transmitting error: Indoor controller side) •Indoor / outdoor unit transmission error (Signal receiving error :Outdoor controller side) •Indoor / outdoor unit transmission error (Transmitting error: Outdoor controller side)	① Check if the wirings are correct on the connecting wires of indoor / outdoor units. ② Check if there is noise on the wires of power supply and connecting wires of indoor / outdoor units. ③ Check if there is noise on both indoor and outdoor controller board. ④ Turn the power off and let the units operate again to confirm.
	3 blinks	•Remote controller transmission error (Signal receiving error: Remote controller side) •Remote controller transmission error (Transmitting error: Remote controller side) •Remote controller transmission error (Signal receiving error: Indoor controller side) •Remote controller transmission error (Transmitting error: Indoor controller side)	① Check if the wirings are correct on indoor units or remote controllers. ② Check if there is noise on the transmission lines of remote controllers. ③ Turn the power off and let the units operate again to confirm.
	4 blinks	•Undefined error code	① Check if there is noise on the transmission lines of remote controllers. ② Check if there is noise on the connecting wires of indoor/outdoor units. ③ Turn the power off and let the units operate again to confirm.

To be continued on the next page.

From the preceding page.

Indication (O.B)		Error Name	Inspection method
LED1 (Green)	LED2 (Red)		
3 blinks	1 blink	•Abnormal high discharge temperature(TH4)	① Check if ball valves are open. ② Check the continuity of connector (TH4) on outdoor controller board by using a tester. ③ Check if the unit fills the refrigerant at the same amount as specified.
	2 blinks	•Abnormal high pressure (High pressure switch 63H worked)	① Check if indoor / outdoor units have a short cycle on their air ducts. ② Check if the connector of 52C (63H) on outdoor controller board is disconnected. ③ Check if the units get their heat exchanger and filter dirty and clogged. ④ Measure resistance values among terminals on linear expansion valve by using a tester.
		•Abnormal low pressure (Low pressure switch 63L worked)	① Check stop valve. ②③④ Put the power off and on again to check if F3 is displayed on restarting. If F3 is displayed, follow the F3 processing direction. ⑤ Correct to proper amount of refrigerant. ⑥ Check linear expansion valve. Refer to 11-2.
	3 blinks	•Protection from overheat operation (TH3)	① Check if outdoor unit has a short cycle on its air duct. ② Check if the connector of TH3 on outdoor controller board is disconnected.
	4 blinks	•Compressor's overcurrent (Overload) •Thermal relay (51C) has been tripped •Overcurrent has locked the operation of compressor in start-up.	① Check if ball valves are open. ② Measure resistance values among terminals on compressor by using a tester. ③ Check if outdoor unit has a short cycle on its air duct. ④ Check if the connector of 51CM (51C) on outdoor controller board is disconnected. ⑤ Check if the units get their heat exchanger and filter dirty and clogged.
	5 blinks	•Open / short circuit of discharge thermistor (TH4) •Open / short circuit of liquid pipe thermistor (TH3) •Open / short circuit of EVA / COND pipe thermistor (TH6)	① Check if the connectors of TH4, TH3, and TH6 on outdoor controller board are disconnected. ② Measure the resistance values of each thermistor (TH4, TH3, and TH6).
4 blinks	1 blinks	•Abnormality of room temperature thermistor (Indoor unit side: TH1) •Abnormality of Liquid pipe thermistor (Indoor unit side:TH2) •Abnormality of EVA / COND pipe thermistor (Indoor unit side: TH5)	① Check if the connectors of CN20, CN21, and CN29 on outdoor controller board are disconnected. ② Measure the resistance values of each thermistor (TH1, TH2, and TH5).
	2 blinks	•Abnormality of drain sensor (Indoor unit side : (DS)) •Malfunction of drain-up machine	① Check if the connector of CN31 on outdoor controller board is disconnected. ② Measure the resistance value of drain sensor. ③ Measure resistance values among terminals on drain-up machine by using a tester.
	3 blinks	•Abnormality of pipe temperature	① Check if the connectors of CN20, CN21, and CN29 on outdoor controller board are disconnected. ② Check if ball valves are open. ③ Check if the wirings are correct on the connecting wires of indoor / outdoor units.

11-2. SELF-DIAGNOSIS ACTION TABLE

<Abnormalities detected when the power is put on> (Note 1) The number in ( ) is the error cord of upper remote controller (M-NET)

Error Code	Meaning of error code and detection method	Case	Judgment and action
None	—	① No voltage is supplied to terminal block (TB1) of indoor unit. a) Power supply breaker is put off. b) Contact failure or disconnection of power supply terminal c) L1-phased open phase ② Electric power is not charged to power supply terminal of controller board. a) Contact failure of power supply terminal b) Disconnection of terminal R or 4/S on controller board ③ Defective outdoor controller board a) Fuse 5A on controller board is blown. b) Defective parts	① Check following items. a) Power supply breaker b) Connection of power supply terminal block (TB1). c) Connection of power supply terminal block (TB1). ② Check following items. a) Connection of power supply terminal block (TB1). b) Connection of terminal on controller board ③ Replace following items. a) Fuse 5A b) Controller board (When items above are checked but the units can not be repaired)
F1 (4103)	**Reverse phase detection, Power supply and indoor/outdoor unit connecting wire converse connection** 1. Three seconds after power on, judge reverse phase by detecting voltage phase of each phase. 2. Abnormal four minutes after power on if power supply and indoor/outdoor unit connecting wire have converse connection.	① L1, L2, L3 are not connected correctly. ② Converse wiring of outdoor power supply line (TB1) and indoor power supply wire (TB4)	① • Check outdoor power supply connection (TB1) • Replace two phases (for example phase L1 and phase L2) out of three phases of outdoor power supply line (TB1) ② Check wiring connection.
F2 (4102)	**L3-phased open phase detection** Detect open phase two seconds after power on.	① L3-phased open-phase	① Check power supply.
F3 (5202)	**63L connector open** Abnormal if 63L connector circuit is open for three minutes continuously after power supply. 63L: Low-pressure switch (PU/PUH-P5, 6YGAA$_2$.UK Only.)	① Disconnection or contact failure of 63L connector on outdoor controller board ② Disconnection or contact failure of 63L ③ 63L is working due to refrigerant leakage or defective parts. ④ Defective outdoor controller board	① Check connection of 63L connector on outdoor controller board. Refer to 11-4. ② Check the 63L side of connecting wire. ③ Check refrigerant pressure. Charge additional refrigerant. Check continuity by tester. Replace the parts if the parts are defective. ④ Replace outdoor controller board.
F4 (4124)	**The connector of 49C is open** Consider the unit abnormal when the circuit of connector (49C) remains open for three consecutive minutes with the power on. 49C: Inner thermostat (Compressor)	① The connector of 49C on outdoor controller board has contact failure or disconnection. ② The switch of 49C has contact failure or disconnection. ③ Power supply was turned on when 49C has been tripped. ④ 49C has been tripped (defective parts). ⑤ Outdoor controller board is defective.	① Check connection of 49C connector on outdoor controller board. Refer to 11-4. ② Check the 49C side of connecting wire. ③④ Check the continuity by tester. Replace defective parts. ⑤ Replace the outdoor controller board.
F7 (4118)	**Reverse phase detector circuit (controller board) fault** Abnormal if some of each phase detection signal is not input three seconds after power supply.	Detective outdoor controller board	Replace outdoor controller board.
F9 (4119)	**2 or more connectors open** Abnormal if two more out of connector (63L, 49C, 51CM) circuits are open for three minutes continuously after power on.	① Disconnection or contact failure of connector (63L, 49C, 51CM) on outdoor controller board ② Disconnection or contact failure of (63L, 49C, 51C). ③ Defective (63L, 49C, 51C) (defective parts) ④ Defective outdoor controller board.	① Check connection of (63L, 49C, 51CM) connector on outdoor controller board. Refer to 11-4. ② Check the (63L, 49C, 51CM) side of connecting wire. ③ Check continuity by tester. Replace the parts if the parts are defective. ④ Replace outdoor controller board.
FA (4108)	**51CM connector open** Abnormal if 51CM connector circuit is open for three minutes continuously after power on. 51CM: Thermal Relay	① Disconnection or contact failure of 51CM connector on outdoor controller board ② Disconnection or contact failure of 51CM ③ Defective 51CM (defective parts) ④ Defective outdoor controller	① Check connecting wire. ② Check connecting wire. ③ Check continuity by tester. Replace the parts if the parts are defective. ④ Replace outdoor controller board.

Error Code	Meaning of error code and detection method	Case	Judgment and action
EA (6844)	**Indoor/outdoor unit connector mis-wiring, excessive number of units (5 units or more)** 1. Outdoor controller board can automatically check the number of connected indoor units. Abnormal if the number of connected indoor units can not be set within four minutes after power on because of mis-wiring of indoor/outdoor unit connecting wire and the like. 2. Abnormal if outdoor controller board recognizes the number of connected indoor units as “5 units or more”.	① Contact failure or mis-wiring of indoor/outdoor unit connecting wire. ② Diameter or length of indoor/outdoor unit connecting wire is out of specified capacity. ③ Five or more indoor units are connected to one outdoor unit. ④ Defective transmitting receiving circuit of outdoor controller board ⑤ Defective transmitting receiving circuit of indoor controller board ⑥ Noise has entered into power supply or indoor/outdoor unit connecting wire. ⑦ Remote controller is wired up among indoor units (twin, triple or quadro units). ⑧ Two or more outdoor units has refrigerant address “0.” (In case of group control).	① Check disconnection or looseness or polarity of indoor/outdoor unit connecting wire of indoor and outdoor units. ② Check diameter and length of indoor/outdoor unit connecting wire. Outdoor-indoor units’ interval: 50m maximum Indoor-indoor units’ interval: 30m maximum Also check if the connection order of flat cable (VVF etc.) is S1, S2, S3. ③ Check the number of indoor units that are connected to one outdoor unit. (If EA is detected.) ④⑤ Put the power off, and on again to check. Replace outdoor controller board or indoor controller board if abnormality is displayed again. Check the indoor/ outdoor unit connecting wire. ⑥ Inspect transmission line to solve the problem.
Eb (6845)	**Mis-wiring of indoor/outdoor unit connecting wire (converse wiring or disconnection)** Outdoor controller board can automatically set the unit number of indoor units. Abnormal if the indoor unit number can not be set within four minutes after power on because of mis-wiring (converse wiring or disconnection) of indoor/outdoor unit connecting wire.	① Contact failure or mis-wiring of indoor/outdoor unit connecting wire ② Diameter or length of indoor/outdoor unit connecting wire is out of specified capacity. ④ Defective transmitting receiving circuit of outdoor controller board ⑤ Defective transmitting receiving circuit of indoor controller board ⑥ Noise has entered into power supply or indoor/outdoor unit connecting wire. ⑦ Remote controller is wired up among indoor units (twin, triple or quadro units). ⑧ Two or more outdoor units has refrigerant address “0.” (In case of group control). ⑨ Outdoor power supply board is defective.	⑦ Wire the remote controller to one of the multiple indoor units. ⑧ Set the refrigerant address of outdoor units with different number starting from “0.” ⑨ Unless the wire has contact failure, disconnect CN2S on indoor power supply board to measure the voltage. When CN2S does not have a current of DC12V to DC16V, replace the indoor power supply board. ※ The descriptions above, ①-⑨, are for EA, Eb and EC.
EC (6846)	**Start-up time over** The unit can not finish start-up process within four minutes after power on.	① Contact failure of indoor/outdoor unit connecting wire ② Diameter or length of indoor/outdoor unit connecting wire is out of specified capacity. ⑥ Noise has entered into power supply or indoor/outdoor unit connecting wire. ⑦ Remote controller is wired up among indoor units (twin, triple or quadro units). ⑧ Two or more outdoor units has refrigerant address “0.” (In case of group control).	
Ed (0403)	**Serial communication error** The communication between outdoor controller board and M-NET p.c. board is not available.	① Breaking of wire or contact failure of connector between outdoor controller board and M-NET p.c. board. ② Contact failure of M-NET p.c. board power supply line ③ Entrance of noise into transmission wire ④ Defective transmitting receiving circuit of M-NET p.c. board ⑤ Defective serial transmitting receiving circuit of outdoor controller board	① Check disconnection, looseness, or breaking of connecting wire between outdoor controller board CN1 and M-NET p.c. board CN5. ② Check departure or looseness of M-NET p.c. board power supply line (CND-TB1). ③ Replace M-NET p.c. board. ④ Replace outdoor controller board.

<table>
<tr><th>Error Code</th><th>Meaning of error code and detection method</th><th>Case</th><th>Judgment and action</th></tr>
<tr><td>U1
(1302)</td><td>Abnormal high pressure (High-pressure switch 63H worked)
Abnormal if high-pressure switch 63H worked (more than 3.24 MPa) during compressor operation.
63H: High-pressure switch
✻ Use current sensor to detect work or return of 63H.</td><td>① Short cycle of indoor unit
② Clogged filter of indoor unit
③ Decreased airflow caused by dirt of indoor fan
④ Dirt of indoor heat exchanger
⑤ Locked indoor fan motor
⑥ Malfunction of indoor fan motor
⑦ Defective operation of stop valve (Not full open)
⑧ Clogged or broken pipe
⑨ Locked outdoor fan motor
⑩ Malfunction of outdoor fan motor
⑪ Short cycle of outdoor unit
⑫ Dirt of outdoor heat exchanger
⑬ Disconnection or contact failure of 63H connection
⑭ Defective outdoor controller board
⑮ Defective action of liner expansion valve
⑯ Refrigerant overcharge</td><td>①-⑥ Check indoor unit and repair defectives.
⑦ Check full open stop valve.
⑧ Check piping and repair defectives.
⑨-⑫ Check indoor unit and repair defectives.
⑬,⑭ Put the power off and check UH display when the power is put again.
Follow the UH display if UH is displayed.
⑮ Check linear expansion valve.
Refer to 11-3.
⑯ Replace refrigerant.</td></tr>
<tr><td>U1</td><td>Abnormal low current or open phase
• An extreme degradation of current value causes abnormal stop.
• Abnormal if current detected phase (V-phase) is open phase after first compressor start-up after supplying the power by three phase power supply model.
• When compressor is operating, compressor is suspended under the following condition: and when current detector (CT) detects a current, which is lower than the detected current specified in the table below, under the following condition:

<Condition>
① For PUH-P1V and PU/PUH-P1.6 ~ P4V
Current detector (CT) has detected a current, which is lower than the detected current specified in the table below, for 0.7-0.8 second.
② For PU/PUH-P1.6 ~ P6Y
Current detector (CT) has detected a current, which is lower than the detected current specified in the table below, for 0.4-0.5 second.
[A]<table><tr><th>Model</th><th>Detected current</th><th>Model</th><th>Detected current</th></tr><tr><td>P1V</td><td>1.0</td><td>P3V</td><td>2.4</td></tr><tr><td>P1.6V</td><td>1.3</td><td>P3Y</td><td>1.0</td></tr><tr><td>P1.6Y</td><td>1.0</td><td>P4V</td><td>1.0</td></tr><tr><td>P2V</td><td>1.6</td><td>P4Y</td><td>1.0</td></tr><tr><td>P2Y</td><td>1.0</td><td>P5Y</td><td>1.5</td></tr><tr><td>P2.5V</td><td>1.8</td><td>P6Y</td><td>1.7</td></tr><tr><td>P2.5Y</td><td>1.0</td><td></td><td></td></tr></table></td><td>① Shortage of refrigerant
② Abnormal pressure degradation by pomp down operation
③ V-phased open phase of compressor
④ Abnormal compressor
Not abnormal if V is instantly displayed when the main power is put off.</td><td>① Check if refrigerant pressure is not degraded.
② Check current of compressor operation when abnormality occurred.
③ Check wiring of compressor.

④ Check or replace compressor.</td></tr>
<tr><td>U2
(1102)</td><td>Abnormal high discharging temperature
Abnormal if discharging temperature thermistor (TH4) exceeds following temperature during compressor operation.
Normal operation: 125℃ or more for three minutes continuously or 135℃
During defrosting: 135℃</td><td>① Over-heated compressor operation caused by shortage of refrigerant
② Defective operation of stop valve
③ Defective thermistor
④ Defective outdoor controller board
⑤ Defective action of linear expansion valve</td><td>① Check intake super heat.
Check leakage of refrigerant.
Charge refrigerant.
② Check if stop valve is full open.
③④ Put the power off and check if U3 is displayed when the power is put again.
When U3 is displayed, refer to “Judgement and action” for U3.
⑤ Check linear expansion valve.
Refer to 11-3.</td></tr>
</table>

Error Code	Meaning of error code and detection method	Case	Judgment and action
U2 (1108)	**Inner thermostat (49C) working detector** Abnormal if inner thermostat (49C) works during compressor operation. 49C: inner thermostat 135±5℃ [PU(H)-P5, 6YGA]	① Over-heated compressor operation caused by shortage of refrigerant ② Defective operation of stop valve ③ Disconnection or contact failure of connector (26C/49C) on outdoor controller board ④ Disconnection or contact failure of 26C/49C ⑤ Defective outdoor controller board ⑥ Defective action of linear expansion valve	① Check intake super heat. Check leakage of refrigerant. Charge refrigerant. ② Check if stop valve is full open. ③-⑤ After checking connection, operate again to check operation. ⑥ Check linear expansion valve. Refer to 11-3.
U2 (1501)	**Abnormal shortage of refrigerant** Abnormal if intake super heat exceeds following temperature during heating compressor operation. 70℃ or more, and indoor pipe <condenser- evaporator> temperature (TH5) is 35℃ or less.	① Leakage or shortage of refrigerant ② Defective operation of stop valve (not full open) ③ Defective thermistor (TH4, TH5, TH6) ④ Defective outdoor controller board ⑤ Defective action of electric expansion valve	① Check leakage of refrigerant. Charge refrigerant. ② Check if stop valve is full open. ③④ Put the power off and check if U3 or U4 is displayed when the power is put again. When U3 or U4 is displayed, refer to "Judgement and action" for U3 or U4. ⑥ Check linear expansion valve. Refer to 11-3.
U3 (5104)	**Open/short circuit of discharging thermistor (TH4)** Abnormal if open (0℃ or less) or short (216℃ or more) is detected during compressor operation. (Detection is inoperative for five minutes of compressor starting process and for 10 minutes after defrosting.)	① Disconnection or contact failure of connector (TH4) on the indoor controller board. ② Defective thermistor ③ Defective outdoor controller board	① Check contact of connector (TH4) on the indoor controller board. Refer to page 49 to 51. Check breaking of the lead wire for thermistor (TH4). Refer to page 131 and 132. ② Check resistance value of thermistor (Refer to 11-3.), or check temperature by microcomputer(Mode switch of SW2). ③ Replace outdoor controller board.
U4 (5105) (5107)	**Open/short circuit of the liquid pipe thermistor (TH3) or outdoor Condenser-Evaporator pipe thermistor (TH6)** Abnormal if open (-39℃ or less) or short (88℃ or more) is detected during compressor operation. (Detection is inoperative for seven minutes after 10 seconds of compressor starting and for 10 minutes after defrosting.)	① Disconnection or contact failure of connector (TH3/TH6) on the indoor controller board. ② Defective thermistor ③ Defective outdoor controller board	① Check contact of connector (TH3/TH6) on the indoor controller board. Refer to page 49 to 51. Check breaking of the lead wire for thermistor (TH3/TH6). Refer to page 131 and 132. ② Check resistance value of thermistor (Refer to 11-3.), or check temperature by microcomputer(Mode switch of SW2). ③ Replace outdoor controller board.
U6 (4101)	**Compressor over current (overload) breaking** Abnormal if current value exceeds overload set value during compressor operation. P1.6 ·····4.5 P2·····5.8 P2.5·····6.4 P3 ·····9.0 P4·····9.0 P5·····15.0 P6 ·····17.0	① Gas pipe side ball valve and liquid pipe side stop valve are shut during operation. ② Abnormal compressor ③ Abnormal power supply voltage ④ Overload operation	① Open ball valve and stop valve. ② Check or replace compressor. Refer to 6-2. ③ Check power supply voltage. ④ Check short cycle.
Ud (1504)	**Over heat protection (over-load operation protection/abnormal fan)** Abnormal if pipe thermistor detects the value that exceeds set value during compressor operation. P1.6-P6·····70℃	① In cooling mode: defective outdoor fan (fan motor) or short cycle of air path ② Defective thermistor ③ Defective outdoor controller board	① Check outdoor fan (fan motor) Refer to 11-3. ②④ Put the power off and operate again to check if U4 is displayed. If U4 is displayed, follow the U4 processing direction.
UE (1302)	**Abnormal High pressure (63H worked)** This error is detected (3.24MPa) from 63H action within 20 seconds of compressor starting in the first heating mode after power on. 63H: high-pressure switch	① Gas pipe side ball valve and liquid pipe side stop valve are shut during operation. ② Disconnection or contact failure of 63H ③ Defective outdoor controller board ④ Power supply reset is detected while indoor filter clogs and overload heating operation. ⑤ Defective outdoor controller board ⑥ Defective action of linear expansion valve	① Open ball valve and stop valve. ②③ Put the power off, and operate again to check if F5 is displayed. If F5 is displayed, follow the F5 processing direction. ④ Check indoor filter. ⑤ Replace outdoor controller board. ⑥ Check linear expansion valve. Refer to 11-3.

Error Code	Meaning of error code and detection method	Case	Judgment and action
UF (4100)	**Compressor over current (start-up locked) breaking** Abnormal if compressor current exceeds 1.2 times of overload set value.	① Abnormal compressor ② Clogged indoor filter ③ Open-phase compressor	① Check compressor. Refer to 6-2. ② Check indoor unit and repair defective. ③ Check connection.
UH (5300)	**Current sensor error** Abnormal if compressor current is not detected on first compressor start-up after power supply is put on.	① Disconnection or contact failure of connector (52C) on outdoor controller board ② Disconnection or contact failure of coil 52C ③ Defective outdoor controller board ④ Defective parts of 52C ⑤ Compressor V-phased wire does not penetrate through current detector.	①② Check connection. ③ Replace outdoor controller board. ④ Check 52C. ⑤ Check wiring.
UL (1300)	**Abnormal low pressure (63L worked)** Abnormal if connector (63L) is open (under- 0.03MPa) during compressor operation.	① Gas pipe side ball valve and liquid pipe side stop valve are shut during operation. ② Disconnection or contact failure of connector (63L) on outdoor controller board. ③ Disconnection or contact failure of 63L. ④ Defective outdoor controller board ⑤ Leakage or defective of refrigerant ⑥ Defective action of linear expansion valve	① Open ball valve and stop valve. ②③④ Put the power off and on again to check if F3 is displayed on restarting. If F3 is displayed, follow the F3 processing direction. ⑤ Leakage or defective of refrigerant ⑥ Check linear expansion valve Refer to 6-2.
E0 (No display)	**Remote controller communication error (Signal receiving error)** (1) Abnormal if any signal from IC of refrigerant address “0” could not normally received for three minutes. (2) Abnormal if sub remote controller could not receive any signal for two minutes.	① Defective communication circuit of remote controller ② Defective communication circuit of indoor controller board of refrigerant address “0”. ③ Noise has entered transmission wire of remote controller. ④ All remote controllers are set as “sub” remote controller. In this case, E4 is displayed at outdoor LED, and E0 is displayed at remote controller. ⑤ Wiring regulations are not observed. Refer to (2) The transmitting specification for “A” control on page 59. •Length of wires •Number of remote controllers •Diameter of wires •Number of indoor units	①②③ Diagnose remote controller Dispose as follows according to diagnosis result. a) When “RC OK” is displayed, Remote controllers have no problem. Put the power off, and on again to check. If, “H0” is displayed for four minutes or more, replace indoor controller board. b) When “RC NG” is displayed, Replace remote controller. c) When “RC E3” or “ERC 00-66” is displayed, noise may be causing abnormality. ④ Set one of the remote controllers “main”, if outdoor LED is E4 while E0 is displayed at remote controller.
E3 (No display)	**Remote controller communication error (Transmitting error)** (1) Abnormal if sub remote controller could not find blank of transmission path for six seconds. (2) Abnormal if remote controller could not finish transmitting 30 times continuously.	① Defective communication circuit of remote controller. ② Noise has entered transmission wire of remote controller. ③ Two or more remote controllers are set as "main."	
E8 (6840)	**Indoor/outdoor unit communication error (Signal receiving error) (Outdoor unit)** (1) Abnormal if outdoor controller could not receive anything normally for three minutes.	① Contact failure of indoor/outdoor unit connecting wire ② Defective communication circuit of indoor controller board ③ Defective communication circuit of indoor controller board ④ Noise has entered indoor/ outdoor unit connecting wire.	① Check disconnection or looseness of indoor/ outdoor unit connecting wire of indoor or outdoor units. ②③④ Put the power off, and on again to check. Replace indoor controller board or outdoor controller board if abnormality is displayed again.

Error Code	Meaning of error code and detection method	Case	Judgment and action
E9 (6841)	**Indoor/outdoor unit communication error (Transmitting error)** **(Outdoor unit)** (1) Abnormal if "0" receiving is detected 30 times continuously though indoor controller has transmitted "1". (2) Abnormal if outdoor controller could not find blank of transmission path for three minutes.	① Defective communication circuit of outdoor controller ② Noise has entered power supply. ③ Noise has entered indoor/ outdoor unit connecting wire. ④ Indoor/ outdoor unit connecting wire has contact failure. ⑤ Defective communication circuit between indoor and outdoor unit on indoor controller board.	①②③ Put the power off, and on again to check. Replace outdoor controller board if abnormality is displayed again.
EF (6607 or 6608)	**Not defined error code** This code is displayed when not defined error code is received.	① Noise has entered transmission wire of remote controller. ② Noise has entered indoor/ outdoor unit connecting wire.	①② Put the power off, and on again to check. Replace indoor controller board or outdoor controller board if abnormality is displayed again.

<M-NET communication error>

(Note) "Indoor unit" in the text indicates M-NET p.c. board in outdoor unit.

Error Code	Meaning of error code and detection method	Case	Judgment and action
A0 (6600)	**Address duplicate definition** This error is displayed when transmission from the units of same address is detected. Note) The address and attribute displayed at remote controller indicate the controller that detected abnormality.	① There are two or more same address of controller of outdoor unit, indoor unit, FRESH MASTER, or LOSSNAY. ② Noise has entered into transmission signal and signal was transformed.	Search the unit with same address as abnormality occurred. If the same address is found, shut of the power supply of outdoor unit and indoor unit and FRESH MASTER or LOSSNAY at the same time for two minutes or more after the address is corrected, and put the power on again. Check transmission waveform or noise on transmission wire.
A2 (6602)	**Hard ware error of transmission Pline** Transmission processor intended to transmit "0", but "1" appeared on transmission wire. Note) The address and attribute display at remote controller indicate the controller that detected abnormality.	① Error is detected if waveform is transformed when wiring works of transmission wire of outdoor unit, indoor unit, FRESH MASTER or LOSSNAY are done, or polarity is changed with the power on and transmission data collide each other. ② Defective transmitting receiving circuit of transmission processor ③ Transmission data is changed by the noise on transmission.	① If the works of transmission wire is done with the power on, shut off the power supply of outdoor unit and indoor unit and FRESH MASTER or LOSSNAY at the same time for two minutes or more, and put the power on again. ② Check transmission waveform or noise on transmission wire.
A3 (6603)	**BUS BUSY** 1. Over error by collision damage Abnormal if transmitting is not possible for 8-10 minutes continuously because of collision of transmission. 2. Data could not reach transmission wire for 8-10 minutes continuously because of noise or etc. Note) The address and attribute displayed at remote controller indicate the controller that detected abnormality.	① Transmission processor could not transmit because short cycle voltage of noise and the like have entered into transmission wire continuously. ② Transmission quantity has increased and transmission is not possible because there was wiring mistake of terminal block for transmission wire (TB3) and terminal block for central control (TB7) in outdoor unit. ③ Transmission are mixed with others and occupation rate on transmission wire rose because of defective repeater (a function to connector or disconnect transmission of control and central control system) of outdoor unit, then abnormality is detected.	① Check if transmission wire of indoor unit, FRESH MASTER, LOSSNAY, or remote controller is not connected to terminal block for central control (TB7) of outdoor unit. ② Check if transmission wore of indoor unit, FRESH MASTER or LOSSNAY is not connected to terminal block for transmission wire of outdoor unit. ③ Check if terminal block for transmission wire (TB3) and terminal block for central control (TB7) is not connected. ④ Check transmission waveform or noise on transmission wire.
A6 (6606)	**Communication error with communication Pline** Defective communication between unit processor and transmission processor Note) The address and attribute display at remote controller indicate the controller that detected abnormality.	① Data of transmission processor or unit processor is not transmitted normally because of accidental trouble such as noise or thunder surge. ② Address forwarding from unit processor is not transmitted normally because of defective transmission processor hardware.	Shut of the power supply of outdoor unit and indoor unit and FRESH MASTER or LOSSNAY at the same time for two minutes or more, and put the power on again. System returns normally if abnormality was accidental malfunction. If the same abnormality generates again, abnormality-generated controller may be defective.

Error Code	Meaning of error code and detection method	Case	Judgment and action
A7 (6607)	**NO ACK** 1. Transmitting side controller detects abnormal if a massage was transmitted but there is no reply (ACK) that a massage was received. Transmitting side detects abnormality every 30 seconds, six times continuously. Note) The address and attribute displayed at remote controller is indicate the controller that did not reply (ACK).	Common factor that has no relation with abnormality source. ① The unit of former address does not exist as address switch has changed while the unit was energized. ② Extinction of transmission wire voltage and signal is caused by over-range transmission wire. • Maximum distance ·····200m • Remote controller line ··(12m) ③ Extinction of transmission wire voltage and signal is caused by type-unmatched transmission wire. Type ····· With shield wire- CVVS, CPEVS With normal wire (no shield)- VCTF, VCTFK, CVV CVS, VVR, VVF, VCT Diameter···125mm² or more ④ Extinction of transmission wire voltage and signal is caused by over-numbered units. ⑤ Accidental malfunction of abnormality-detected controller (noise, thunder surge) ⑥ Defective of abnormality-generated controller	**Always try the followings when the error "A7" occures.** ① Shut off the power supply of outdoor unit and indoor unit and FRESH MASTER or LOSSNAY at the same time for two minutes or more, and put the power on again. If malfunction was accidental, the unit returns to normal. ② Check address switch of abnormality-generated address. ③ Check disconnection or looseness of abnormality-generated or abnormality-detected transmission wire (terminal block and connector) ④ Check if tolerance range of transmission wire is not exceeded. ⑤ Check if type of transmission wire is correct or not. If there were some trouble of ①-⑤ above, repair the defective, then shut off the power supply of outdoor unit and indoor unit and FRESH MASTER or LOSSNAY at the same time for two minutes or more, and put the power on again. • If there was no trouble with ①-⑤ above in single refrigerant system (one outdoor unit), controller of displayed address or attribute is defective. • If there was no trouble with ①-⑤ above in different refrigerant system (two or more outdoor units), judge with ⑥. ⑥ If address of abnormality source is the address that should not exist, there is the unit that memorizes nonexistent address information. Delete useless address information with manual setting function of remote controller. Only the system FRESH MASTER or LOSSNAY are connected to, or the system that is equipped with group setting of different refrigerant system. If there was no trouble with ①-⑥ above, replace the controller board of displayed address or attribute. If the unit does not return normally, multi-controller board of outdoor unit may be defective
	2. If displayed address or attribute is outdoor unit, Indoor unit detects abnormality when indoor unit transmitted to outdoor unit and there was no reply (ACK).	① Contact failure of transmission wire of outdoor unit or indoor unit ② Disconnection of transmission connector (CN2M) of outdoor unit ③ Defective transmitting receiving circuit of outdoor unit or indoor unit	
	3. If displayed address or attribute is indoor unit, Remote controller detects abnormality when remote controller transmitted to indoor unit and there was no reply (ACK).	① During group operation with indoor unit of multi- refrigerant system, if remote controller transmit to indoor unit while outdoor unit power supply of one refrigerant system is put off or within two minutes of restart, abnormality is detected. ② Contact failure of transmission wire of remote controller or indoor unit ③ Disconnection of transmission connector (CN2M) of indoor unit ④ Defective trnamsitting receiving circuit of indoor unit or remote controller	
	4. If displayed address or attribute is remote controller, Indoor unit detects abnormality when indoor unit transmitted to remote controller and there was no reply (ACK).	① During group operation with indoor unit of multi- refrigerant system, if indoor unit transmit to remote controller while outdoor unit power supply of one refrigerant system is put off or within two minutes of restart, abnormality is detected. ② Contact failure of transmission wire of remote controller or indoor unit ③ Disconnection of transmission connector (CN2M) of indoor unit ④ Defective trnamsitting receiving circuit of indoor unit or remote controller	

Continued to the next page.

From the previous page.

Error Code	Meaning of error code and detection method	Case	Judgment and action
A7 (6607)	5. If displayed address or attribute is FRESH MASTER, Indoor unit detects abnormality when indoor unit transmitted to FRESH MASTER and there was no reply (ACK).	① During sequential operation of indoor unit and FRESH MASTER of other refrigerant system, if indoor unit transmits to FRESH MASTER while outdoor unit power supply of same refrigerant system with FRESH MASTER is put off or within two minutes of restart, abnormality is detected. ② Contact failure of transmission wire of indoor unit or FRESH MASTER ③ Disconnection of transmission connector (CN2M) of indoor unit or FRESH MASTER ④ Defective transmitting receiving circuit of indoor unit or FRESH MASTER	**Same as mentioned in "A7" of the previous page.**
	6. If displayed address or attribute is LOSSNAY, Indoor unit detects abnormality when indoor unit transmitted to LOSSNAY and there was no reply (ACK).	① If the power supply of LOSSNAY is off, indoor unit detects abnormality when it transmits to LOSSNAY. ② During sequential operation of indoor unit and LOSSNAY of other refrigerant system, if indoor unit transmits to LOSSNAY while outdoor unit power supply of same refrigerant system with LOSSNAY is put off or within two minutes of restart, abnormality is detected. ③ Contact failure of transmission wire of indoor unit of LOSSNAY ④ Disconnection of transmission connector (CN2M) of indoor unit ⑤ Defective transmitting receiving circuit of indoor unit or LOSSNAY	
	7. If displayed address or attribute is nonexistent,	① The unit of former address does not exist as address switch has changed while the unit was energized. ② Abnormality is detected when indoor unit transmitted because the address of FRESH MASTER and LOSSNAY are changed after sequential operation of FRESH MASTER and LOSSNAY by remote controller.	
A8 (6608)	**M-NET•NO RESPONSE** Abnormal if a massage was transmitted and there were reply (ACK) that massage was received, but response command does not return. Transmitting side detects abnormality every 30 seconds, six times continuously. Note) The address and attribute displayed at remote controller is indicate the controller that did not reply (ACK).	① Transmitting condition is repeated fault because of noise and the like. ② Extension of transmission wire voltage and signal is caused by over-range transmission wire. • Maximum distance ·····200m • Remote controller line ··(12m) ③ Extension of transmission wire voltage and signal is caused by type-unmatched transmission wire. Type ····· With shield wire- CVVS, CPEVS With normal wire (no shield)- VCTF, VCTFK, CVV CVS, VVR, VVF, VCT Diameter···125mm² or more ④ Accidental malfunction of abnormality-generated controller	① Check transmission waveform or noise on transmission wire. ② Shut off the power supply of outdoor unit and indoor unit and FRESH MASTER or LOSSNAY at the same time for two minutes or more, and put the power on again. If malfunction was accidental, the unit returns to normal. If the same abnormality generates again, controller of displayed address and attribute may be defective.

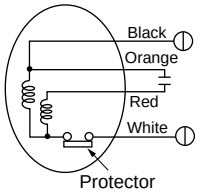
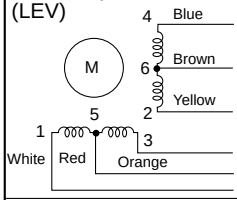
11-3. HOW TO CHECK THE PARTS

PUH-P1, P1.6, P2, P2.5, P3, P4VGAA.UK
PUH-P1, P1.6, P2, P2.5, P3, P4VGAA$_1$.UK

PU-P1.6, P2, P2.5, P3, P4VGAA.UK
PU-P1.6, P2, P2.5, P3, P4VGAA$_1$.UK

PUH-P1.6, P2, P2.5, P3, P4, P5, P6YGAA.UK
PUH-P1.6, P2, P2.5, P3, P4, P5, P6YGAA$_1$.UK
PUH-P5, P6YGAA$_2$.UK

PU-P1.6, P2, P2.5, P3, P4, P5, P6YGAA.UK
PU-P1.6, P2, P2.5, P3, P4, P5, P6YGAA$_1$.UK
PU-P5, P6YGAA$_2$.UK

<table>
<tr><th>Parts name</th><th>Check points</th></tr>
<tr><td>Liquid temperature thermistor (TH3)
Discharge temperature thermistor (TH4)
Condenser/evaporator temperature thermistor (TH6)</td><td>Disconnect the connector then measure the resistance using a tester. (Surrounding temperature 10℃~30℃)
<table>
<tr><th></th><th>Normal</th><th>Abnormal</th></tr>
<tr><td>TH3</td><td>4.3kΩ~9.6kΩ</td><td rowspan="3">Open or short</td></tr>
<tr><td>TH4</td><td>160kΩ~410kΩ</td></tr>
<tr><td>TH6</td><td>4.3kΩ~9.6kΩ</td></tr>
</table>
(Refer to the next pege for a detail.)</td></tr>
<tr><td>FAN MOTOR(MF)
 
</td><td>Measure the resistance between the terminals using a tester.
(Surrounding temperature 20C°)
<table>
<tr><th>Motor lead wire</th><th>Normal</th><th>Abnormal</th></tr>
<tr><td>White — Black</td><td>57.4Ω ±10%</td><td rowspan="2">Open or short</td></tr>
<tr><td>White — Red</td><td>99.7Ω ±10%</td></tr>
</table></td></tr>
<tr><td>Linear expansion valve (LEV)
 
</td><td>Disconnect the connector then measure the resistance using a tester. (Surrounding temperature 20℃)
<table>
<tr><th colspan="4">Normal</th><th>Abnormal</th></tr>
<tr><td>(1) - (5)
White - Red</td><td>(2) - (6)
Yellow - Brown</td><td>(3) - (5)
Orange - Red</td><td>(4) - (6)
Blue - Brown</td><td rowspan="2">Open or short</td></tr>
<tr><td colspan="4">150Ω ±10%</td></tr>
</table></td></tr>
<tr><td>4-WAY VALVE SOLENOID COIL (21S4)</td><td>Measure the resistance between the terminals using a tester.
(Surrounding temperature 20C°)
<table>
<tr><th>Normal</th><th>Abnormal</th></tr>
<tr><td>1430Ω</td><td>Open or short</td></tr>
</table></td></tr>
<tr><td>BYPASS VALVE SOLENOID COIL (21R)

Only PUH-P5, P6</td><td>Measure the resistance between the terminals using a tester.
(Surrounding temperature 20°)
<table>
<tr><th>Normal</th><th>Abnormal</th></tr>
<tr><td>P5, P6</td><td rowspan="2">Open or short</td></tr>
<tr><td>1970Ω</td></tr>
</table></td></tr>
<tr><td>CRANKCASE HEATER (HC)</td><td>Measure the resistance between the terminals using a tester.
<table>
<tr><th colspan="2">Normal</th><th>Abnormal</th></tr>
<tr><td>P1, P1.6</td><td>P2~P6</td><td rowspan="2">Open or short</td></tr>
<tr><td>1920Ω ±7%</td><td>1516Ω ±7%</td></tr>
</table></td></tr>
</table>

<Thermistor characteristic graph>

Thermistor for lower temperature

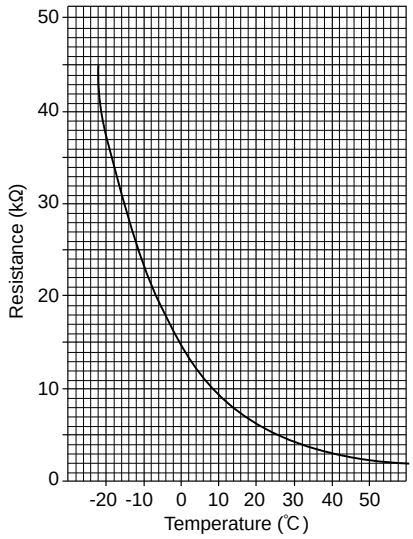
Liquid temperature thermistor(TH3)
Condenser/evaporator temperature thermistor(TH6)

Thermistor R_0=15kΩ ± 3%
Fixed number of B=3480 ± 2%

$$Rt=15\exp\{3480(\frac{1}{273+t}-\frac{1}{273})\}$$

0℃	15kΩ
10℃	9.6kΩ
20℃	6.3kΩ
25℃	5.2kΩ
30℃	4.3kΩ
40℃	3.0kΩ

< Thermistor for lower temperature >



Thermistor for higher temperature

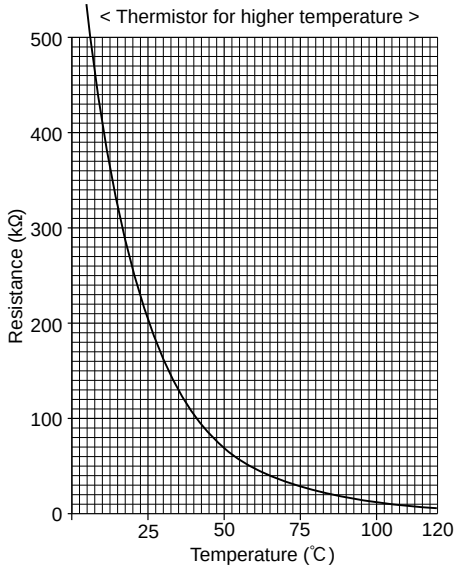
Discharge temperature thermistor(TH4)

Thermistor R120=7.465kΩ ±2%
Fixed number of B=4057 ±2%

$$Rt=7.465\exp\{4057(\frac{1}{273+t}-\frac{1}{393})\}$$

20℃	250kΩ
30℃	160kΩ
40℃	104kΩ
50℃	70kΩ
60℃	48kΩ
70℃	34kΩ
80℃	24kΩ
90℃	17.5kΩ
100℃	13.0kΩ
110℃	9.8kΩ

< Thermistor for higher temperature >

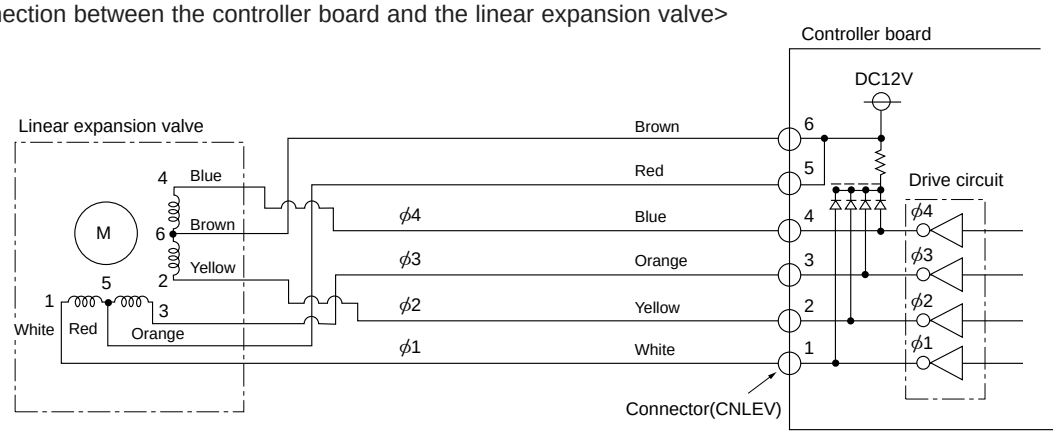


Linear expansion valve

① **Operation summary of the linear expansion valve.**

• Linear expansion valve open/close through stepping motor after receiving the pulse signal from the controller board.
• Valve position can be changed in proportion to the number of pulse signal.

<Connection between the controller board and the linear expansion valve>



<Output pulse signal and the valve operation>

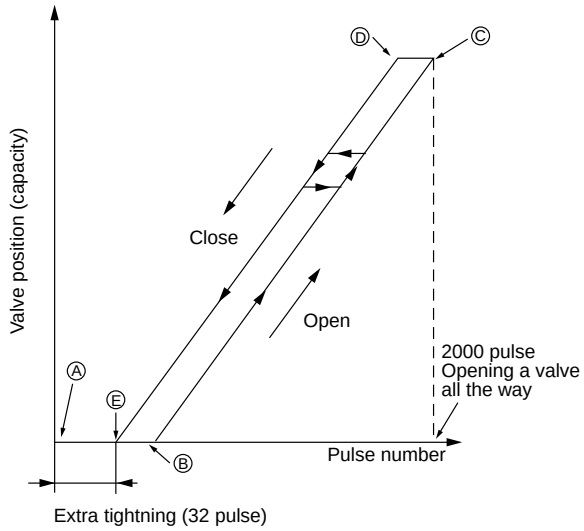
Output (Phase)	Output			
	1	2	3	4
ϕ1	ON	OFF	OFF	ON
ϕ2	ON	ON	OFF	OFF
ϕ3	OFF	ON	ON	OFF
ϕ4	OFF	OFF	ON	ON

Closing a valve : 1 → 2 → 3 → 4 → 1
Opening a valve : 4 → 3 → 2 → 1 → 4

The output pulse shifts in above order.

✵ 1. When linear expansion valve operation stops, all output phase become OFF.
2. At phase interruption or when phase does not shift in order, motor does not rotate smoothly and motor will locks and vibrates.

② Linear expansion valve operation

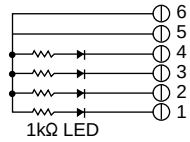


✵ When the switch is turned on, 2200 pulse closing valve signal will be send till it goes to Ⓐ point in order to define the valve position.

When the valve move smoothly, there is no noise or vibration occurring from the linear expansion valve : however, when the pulse number moves from Ⓔ to Ⓐ or when the valve is locked, more noise can be heard than normal situation.

✵ Noise can be detected by placing the ear against the screw driver handle while putting the screw driver to the linear expansion valve.

③ Trouble shooting

Problem	Check point	Corrective measure
Operation circuit failure of the micro processor.	Remove the connector from the controller board and connect diagnostic LEDs.  Pulse signal will be sent out for 10 seconds as soon as the main switch is turn on. If there is LED with lights on or lights off, it means the operation circuit is abnormal.	Exchange the indoor controller board at drive circuit failure.
Linear expansion valve mechanism is locked.	Motor will idle and make ticking noise when motor is operated while the linear expansion valve is locked. This ticking sound is the sign of the abnormality.	Exchange the linear expansion vale.
Short or breakage of the motor coil of the linear expansion valve.	Measure the resistance between the each coil (red-white, red-orange, brown-yellow, brown-blue) using a tester. It is normal if the resistance is in the range of 150 ±10%.	Exchange the linear expansion valve.
Wrong connection of the connector or contact failure.	① Check improperly connected connector terminals and the wire colors. ② Remove the connector on the controller board side and check electrical conductance	Disconnect the connector at the controller board, then check the continuity.

11-4. TEST POINT DIAGRAM

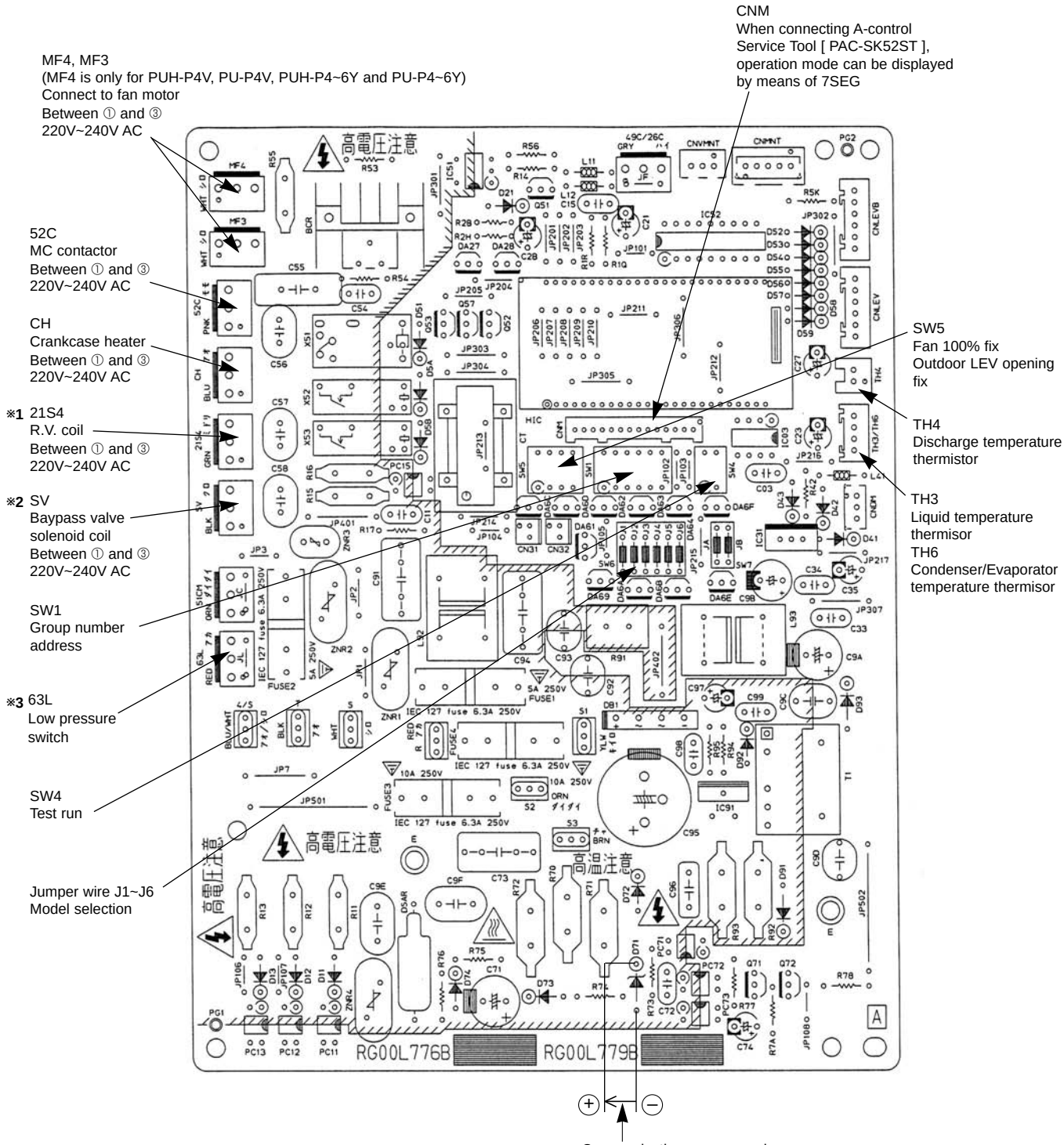
● **Outdoor controller board**

PUH-P1, P1.6, P2, P2.5, P3, P4VGAA.UK
PUH-P1, P1.6, P2, P2.5, P3, P4VGAA1.UK

PU-P1.6, P2, P2.5, P3, P4VGAA.UK
PU-P1.6, P2, P2.5, P3, P4VGAA1.UK

PUH-P1.6, P2, P2.5, P3, P4, P5, P6YGAA.UK
PUH-P1.6, P2, P2.5, P3, P4, P5, P6YGAA1.UK
PUH-P5, P6YGAA2.UK

PU-P1.6, P2, P2.5, P3, P4, P5, P6YGAA.UK
PU-P1.6, P2, P2.5, P3, P4, P5, P6YGAA1.UK
PU-P5, P6YGAA2.UK

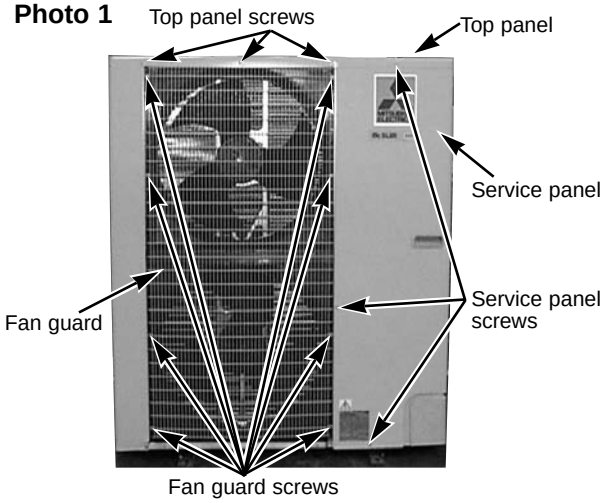
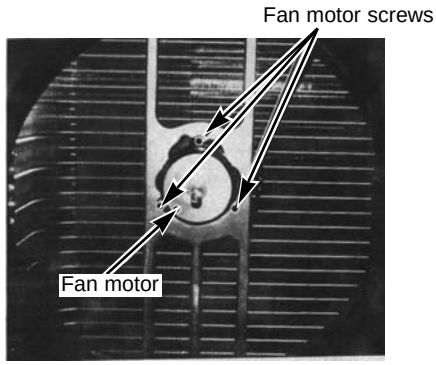
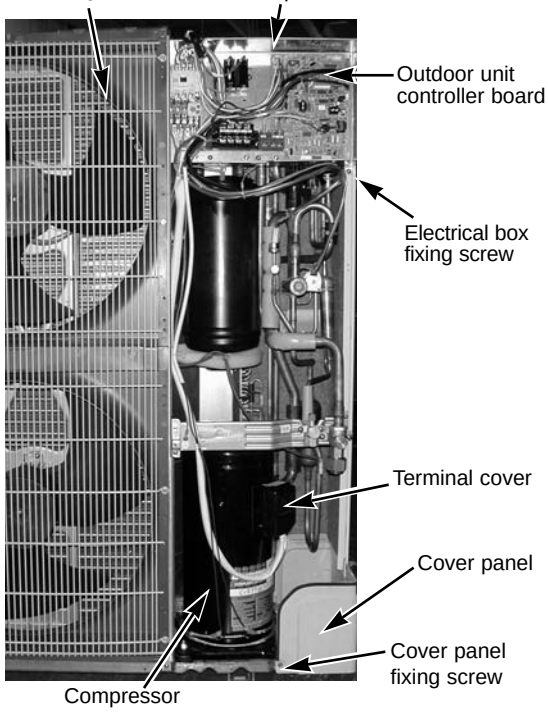


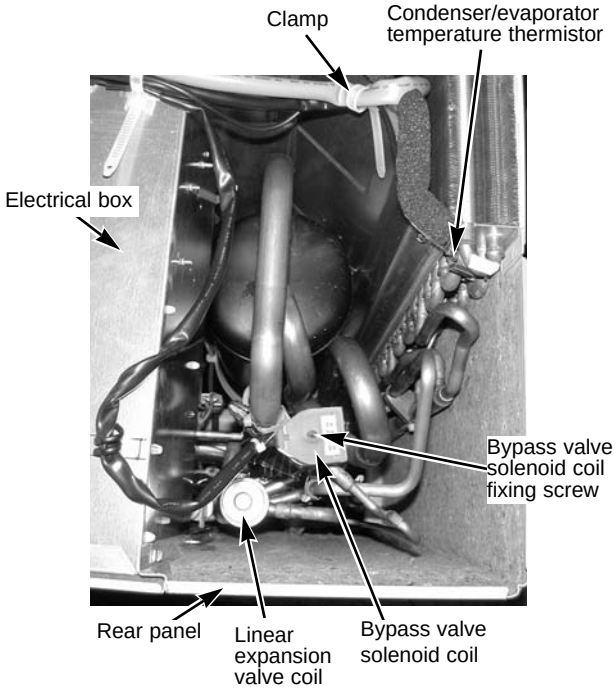
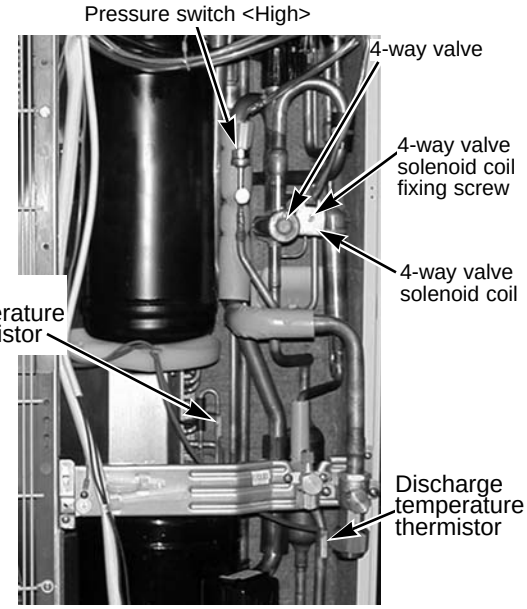
※**1**. 21S4 is only for PUH-P1~4V and PUH-P1.6~6Y.
※**2**. SV is only for PUH-P5Y and PUH-P6Y.
※**3**. 63L is only for PUH-P5, 6YGAA2 and PU-P5, 6YGAA2.

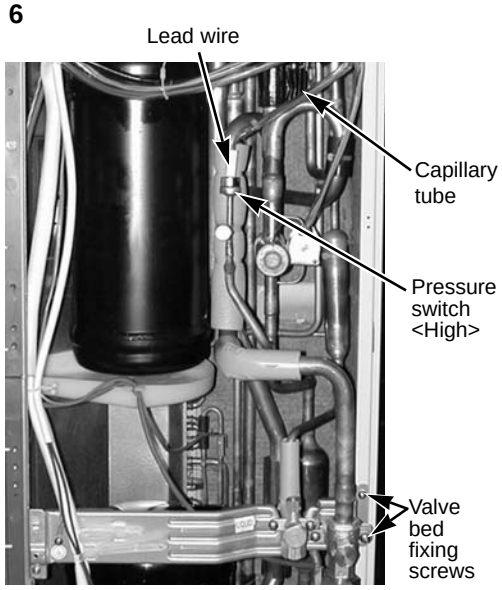
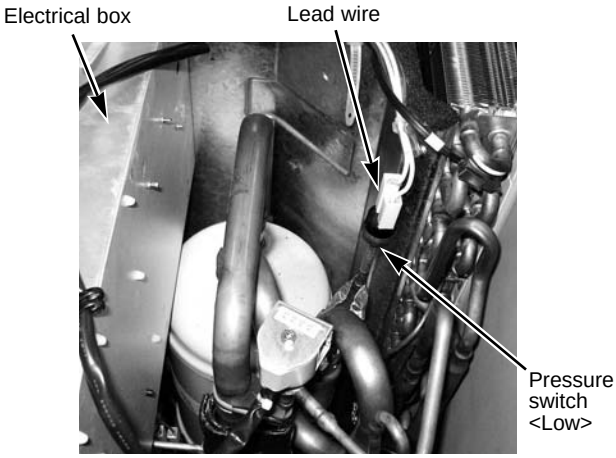
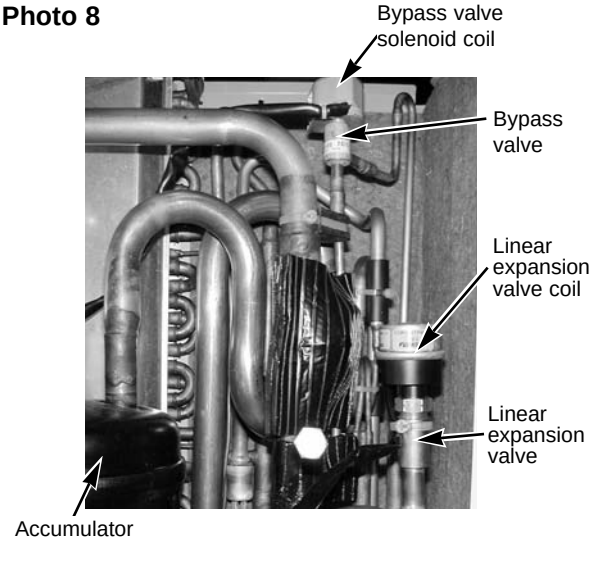
12 DISASSEMBLY PROCEDURE

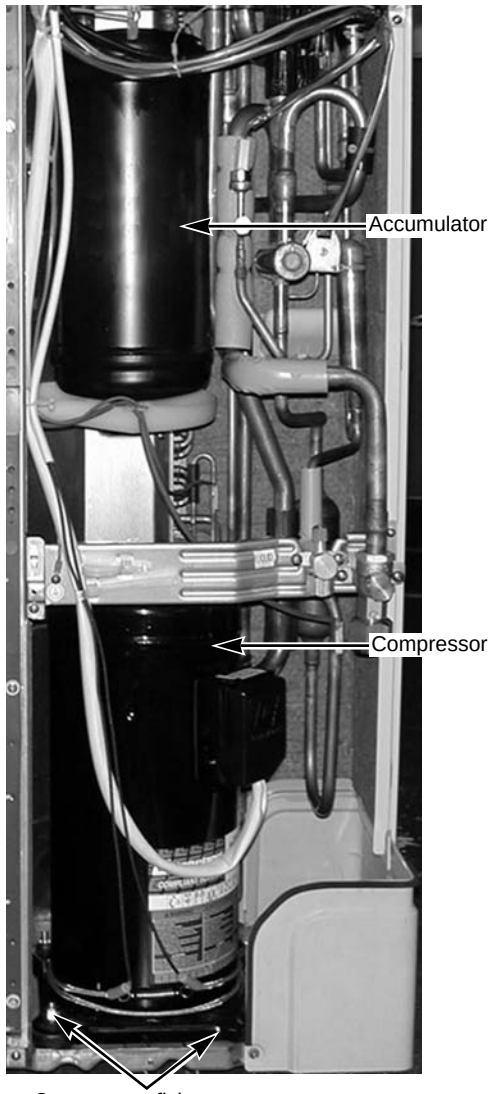
PUH-P5YGAA.UK PUH-P6YGAA.UK
PUH-P5YGAA$_1$.UK PUH-P6YGAA$_1$.UK
PUH-P5YGAA$_2$.UK PUH-P6YGAA$_2$.UK

Note : The following photos are PUH-P5/P6YGAA.UK and PUH-P5/P6YGAA$_1$.UK except photo 7.
PUH-P5/P6YGAA$_2$.UK is used for photo 7.

OPERATING PROCEDURE	PHOTOS
1. Removing the Service panel and Top panel (1) Remove the 3 service panel fixing screws (5 × 15) and slide the hook to remove the service panel. (2) Remove the screws (3 for front, 2 for rear/5 × 15) of the top panel and remove it. <When the rear screws of the top panel are not possible to remove> Remove the 3 front screws (5 × 15) of the top panel and lift the front side of the top panel.	**Photo 1** 
2. Removing the Fan and Fan motor (1) Remove the 6 fan guard screws (5 × 15) to remove it. (See Photo 1) (2) Remove the propeller nut (M8) and propeller fan. (3) Remove the 3 fan motor screws (5 × 25) to remove the fan motor.	**Photo 2** 
3. Removing the Electrical box (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the Bypass valve, Crankcase heater, Pressure switch<for high pressure>, Liquid temperature thermistor, Discharge temperature thermistor, condenser/evaporator temperature thermistor and 4-way valve from the connector housing on the controller board,then disconnect the fan motor lead wire from the housing mentioned before and the condenser lead wire for the fan from the electrical box. <Diagram symbol in the connector housing> Bypass valve solenoid coil (SV) · Crankcase heater (CH) Pressure switch <for high pressure> (63H) Liquid temperature thermistor (TH3) Discharge temperature thermistor (TH4) Condenser/evaporator temperature thermistor (TH6) 4-way valve solenoid coil (21S4) · Fan motor (MF3, MF4) (4) Remove the terminal cover and disconnect the compressor lead wire and inner thermal device terminal. (5) Remove the electrical box screw (4 × 10) and lift the box to remove it. The electric box cover is hooked at 2 points on the left and 1 point on the right.	**Photo 3** 

OPERATING PROCEDURE	PHOTOS
4. Removing the liquid temperature thermistor, discharge temperature thermistor and condenser/evaporator temperature thermistor (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (When the top panel removing is not possible, remove the electric parts box. Refer to 3.) ※ When removing liquid temperature thermistor and the discharge temperature thermistor, it unnecessary to remove the top panel. (See Photo 5) (3) Disconnect the lead wire of the liquid temperature thermistor, discharge temperature thermistor and condenser/evaporator temperature thermistor from the housing (TH3, TH4, TH6) on the controller board. (4) Loosen the 1 lead wire clamps on the electrical box. (5) Pull out the thermistor from the sensor holder.	**Photo 4** 
5. Removing the bypass valve solenoid coil (SV) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (When the top panel removing is not possible, remove the electrical box. Refer to 3.) (3) Remove coil fixing screw (M4 × 8) and disconnect the lead wire of the bypass valve solenoid coil (SV) from on the controller board.	
6. Removing the bypass valve (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the bypass valve solenoid coil. (See Photo 4) (4) Recover gas from the refrigerant circuit. (5) Remove the braze at the intake and outlet of the bypass valve. **Note :** ● Before using a burner, reclaim gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa). ● Use the burner under the condition that gas can be recovered even when the inner pressure rises by heat. ● When installing the bypass valve, cover it with a wet cloth to prevent it from heating, then braze the pipes.	
7. Removing the 4-way valve solenoid coil (21S4) (1) Remove the service panel. (See Photo 1) (2) Remove 4-way valve solenoid coil fixing screw (M5 × 6) and disconnect the lead wire of the 4-way valve solenoid coil (21S4) from the controller board.	**Photo 5** 
8. Removing the 4-way valve (1) Remove the service panel. (See Photo 1) (2) Remove the 4-way valve solenoid coil. (See Photo 5) (3) Recover gas from the refrigerant circuit. (4) Remove the braze pipe of the 4-way valve. **Note :** ● Before using a burner, reclaim gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa). ● Use the burner under the condition that gas can be recovered even when the inner pressure rises by heat. ● When installing the 4-way valve, cover it with a wet cloth to prevent it from heating, then braze the pipes.	

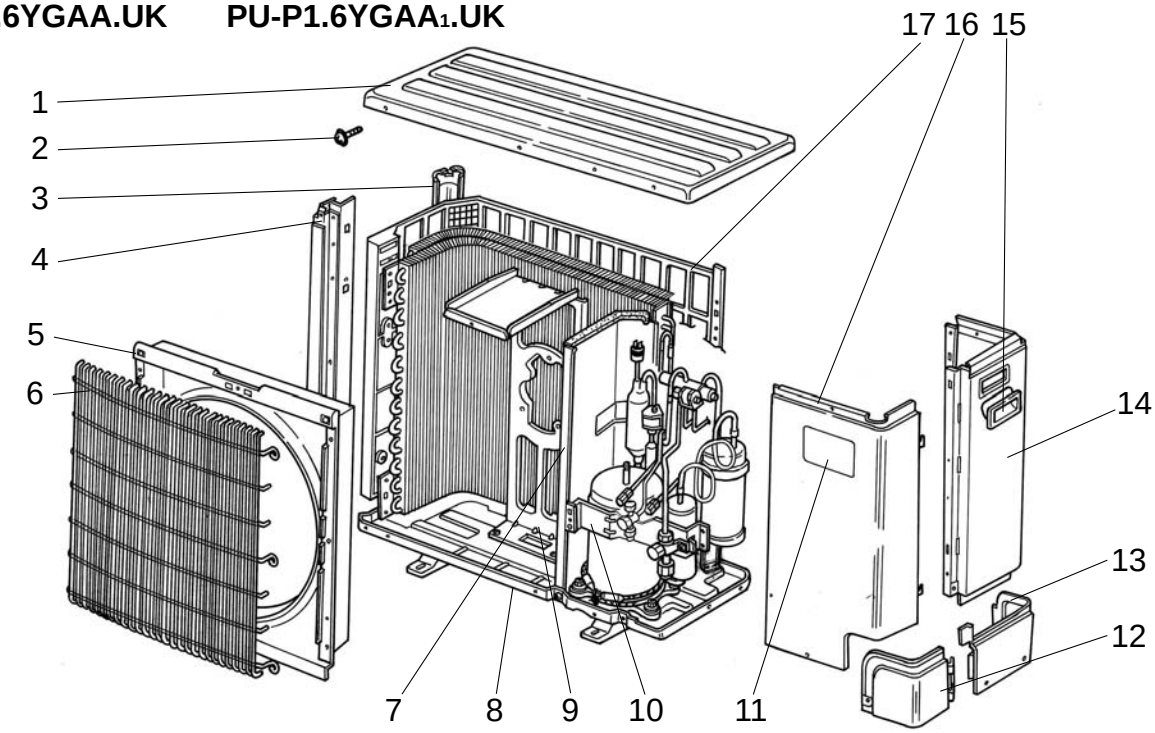
OPERATING PROCEDURE	PHOTOS
9. Removing the high pressure switch (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electrical box. (See Photo 3) (4) Disconnect the lead wire of the pressure switch. (See Photo 6) (5) Remove the braze part of the pressure switch. Note : When installing the pressure switch, cover the pressure switch with a wet cloth to prevent the pressure switch from heating, then braze it.	**Photo 6** 
10. Removing the low pressure switch **[PUH-P5YGAA2.UK PUH-P6YGAA2.UK Only]** (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electrical box. (See Photo 3) (4) Disconnect the lead wire of the pressure switch. (See Photo 7) (5) Remove the braze part of the pressure switch. Note : When installing the pressure switch, cover the pressure switch with a wet cloth to prevent the pressure switch from heating, then braze it.	**Photo 7** **[PUH-P5YGAA2.UK PUH-P6YGAA2.UK Only]** 
11. Removing the linear expansion valve (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electrical box. (See Photo 3) (4) Recover gas from the refrigerant circuit. (5) Remove the linear expansion valve coil. (See Photo 8) (6) Remove the braze pipes of the linear expansion valve. **Note 1:** When installing the linear expansion valve, remove its coil and cover the valve with a wet cloth so as to prevent it from heating, then braze the pipes. **Note 2:** By detaching the rear panel, the brazed parts will easily become separated. **Note 3:** ● Before using a burner, reclaim gas from the pipes until the pressure gauge shows 0 kg/cm^2 (0 MPa). ● Use the burner under the condition that gas can be recovered even when the inner pressure rises by heat.	**Photo 8** 

OPERATING PROCEDURE	PHOTOS
12. Removing the Bell mouth (1) Remove the 6 fan guard fixing screws (5 × 15) to remove it. (See Photo 1) (2) Remove the top panel. (3) Remove a bell mouth fixing screw (5 × 15) to remove it.	**Photo 9** Bell mouth fixing screw
13. Removing the compressor (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the electric parts box. (See Photo 3) (4) Remove the bell mouth. (See Photo 9) (5) Remove the 3 valve bed fixing screws (4 × 10) and the 4 ball valve fixing screws(5 × 16) to remove the valve bed. (6) Remove the 3 rear panel fixing screws (5 × 15) to the panel. (7) Remove the cover panel fixing screw (5 × 15) to remove the front side of cover panel. (8) Recover gas from the refrigerant circuit. (9) Remove the 3 points of the compressor fixing nut with a monkey wrench. (10) Remove the brazed pipe of compressor intake and outlet to remove the compressor <Reference> ※ When the power supply terminal block of the compressor is fixed with the screws, the tightening torque is from 1.4 to 1.7 N.m. **NOTE** ● Before using a burner, reclaim gas from the pipes until the pressure gauge shows 0 kg/cm^2 (0 MPa). ● Use the burner under the condition that gas can be recovered even when the inner pressure rises by heat.	**Photo 10** 
14. Removing the accumulator. (1) Recover gas from the refrigerant circuit. (2) Remove the compressor or remove the rear panel. (3) Remove the brazed pipe of accumulator intake and outlet to remove the accumulator **NOTE :** ● Before using a burner, reclaim gas from the pipes until the pressure gauge shows 0 kg/cm^2 (0 MPa). ● Use the burner under the condition that gas can be recovered even when the inner pressure rises by heat.	

13 PARTS LIST

STRUCTURAL PARTS

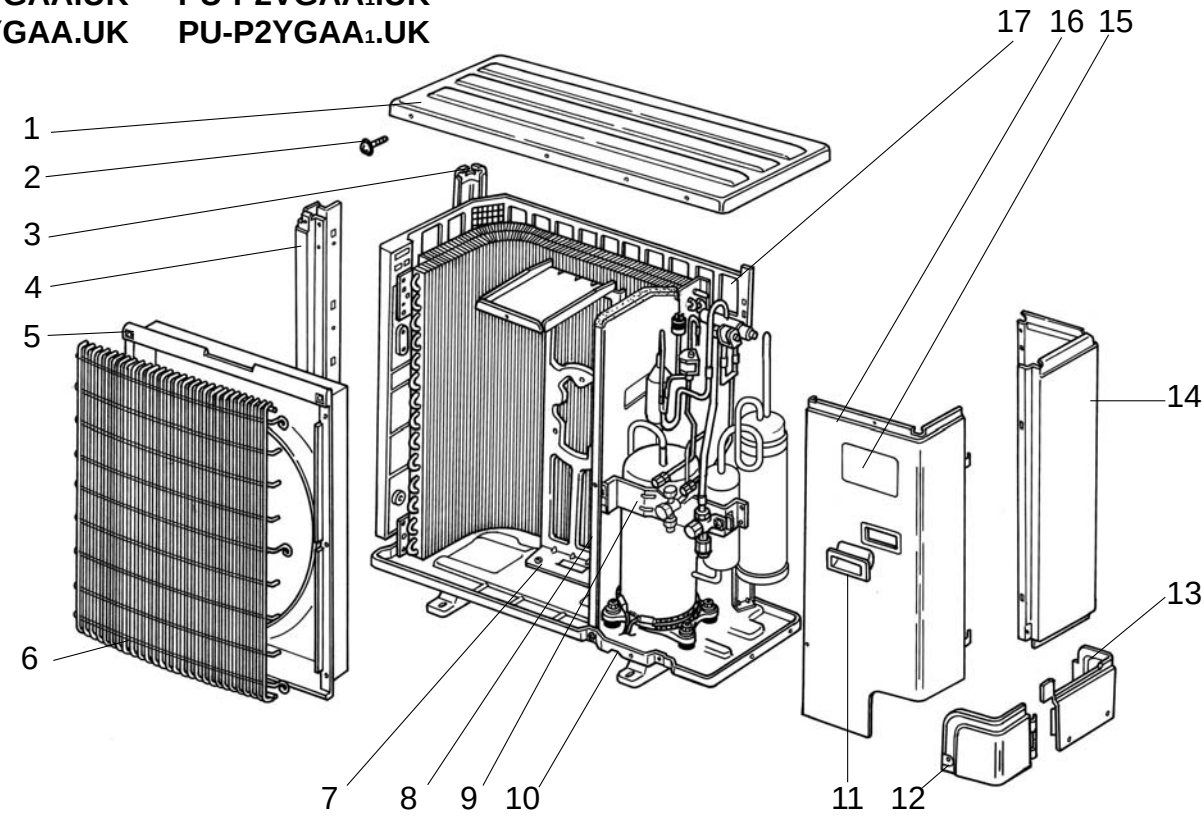
PUH-P1VGAA.UK PUH-P1VGAA$_1$.UK
PUH-P1.6VGAA.UK PUH-P1.6VGAA$_1$.UK
PUH-P1.6YGAA.UK PUH-P1.6YGAA$_1$.UK
PU-P1.6VGAA.UK PU-P1.6VGAA$_1$.UK
PU-P1.6YGAA.UK PU-P1.6YGAA$_1$.UK



No.	Part No.	Part Name	Specification	Q'ty/set					Remarks (Drawing No.)	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P1.UK	PUH-P1.6.UK		PU-P1.6.UK					Unit	Amount
				VGAA VGAA$_1$	VGAA VGAA$_1$	YGAA YGAA$_1$	VGAA VGAA$_1$	YGAA YGAA$_1$					
1	S70 30L 641	TOP PANEL		1	1	1	1	1					
2	—	F.ST SCREW	(5×15)	16	16	16	16	16	(DG12F536H15)				
3	S70 30L 613	REAR SUPPORT		1	1	1	1	1					
4	S70 23T 614	FRONT SUPPORT		1	1	1	1	1					
5	S70 30L 119	BELL MOUTH		1	1	1	1	1					
6	S70 E01 675	WIRE GRILL - S		1	1	1	1	1					
7	—	SEPARATOR ASSY		1	1	1	1	1	(RG00R045G01)				
8	S70 E01 686	BASE		1	1	1	1	1					
9	S70 96W 130	MOTOR SUPPORT		1	1	1	1	1					
10	—	VALVE BED ASSY		1	1	1	1	1	(RG00R048G01)				
11	S70 001 699	LABEL (MITSUBISHI)		1	1	1	1	1					
12	S70 31L 658	COVER PANEL 1		1	1	1	1	1					
13	S70 30L 658	COVER PANEL 2		1	1	1	1	1					
14	S70 E00 682	REAR PANEL		1	1	1	1	1					
15	S70 30L 655	PANEL HANDLE		1	1	1	1	1					
16	S70 E09 661	SERVICE PANEL		1	1								
	S70 E08 661	SERVICE PANEL				1							
	S70 E01 661	SERVICE PANEL					1						
	S70 E05 661	SERVICE PANEL						1					
17	S70 30L 698	REAR GUARD		1	1	1	1	1					

STRUCTURAL PARTS

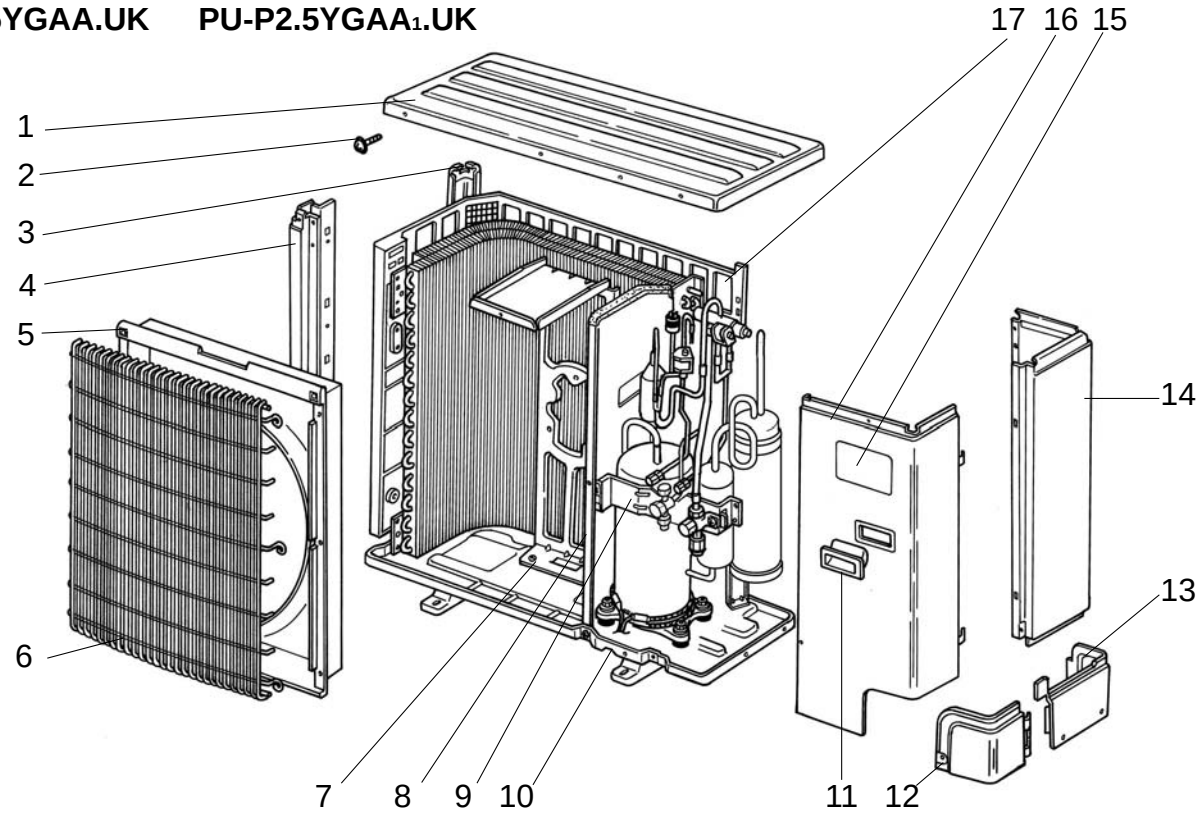
PUH-P2VGAA.UK PUH-P2VGAA$_1$.UK
PUH-P2YGAA.UK PUH-P2YGAA$_1$.UK
PU-P2VGAA.UK PU-P2VGAA$_1$.UK
PU-P2YGAA.UK PU-P2YGAA$_1$.UK



No.	Part No.	Part Name	Specificatio	Q'ty/set				Remarks (Drawing No.)	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P2 .UK		PU-P2 .UK					Unit	Amount
				VGAA VGAA$_1$	YGAA YGAA$_1$	VGAA VGAA$_1$	YGAA YGAA$_1$					
1	S70 30L 641	TOP PANEL		1	1	1	1					
2	—	F.ST SCREW	(5×15)	16	16	16	16	(DG12F536H15)				
3	S70 97W 613	REAR SUPPORT		1	1	1	1					
4	S70 E00 614	FRONT SUPPORT		1	1	1	1					
5	S70 36L 119	BELL MOUTH		1	1	1	1					
6	S70 E02 675	WIRE GRILL-M		1	1	1	1					
7	S70 97W 130	MOTOR SUPPORT		1	1	1	1					
8	—	SEPARATOR ASSY		1	1	1	1	(RG00R045G02)				
9	—	VALVE BED ASSY		1	1	1	1	(RG00R048G02)				
10	S70 E02 686	BASE		1	1	1	1					
11	S70 30L 655	PANEL HANDLE		2	2	2	2					
12	S70 31L 658	COVER PANEL-1		1	1	1	1					
13	S70 30L 658	COVER PANEL-2		1	1	1	1					
14	S70 E01 682	REAR PANEL		1	1	1	1					
15	S70 001 699	LABEL (MITSUBISHI)		1	1	1	1					
16	S70 E10 661	SERVICE PANEL		1								
	S70 E11 661	SERVICE PANEL			1							
	S70 E02 661	SERVICE PANEL				1						
	S70 E06 661	SERVICE PANEL					1					
17	S70 31L 698	REAR GUARD		1	1	1	1					

STRUCTURAL PARTS

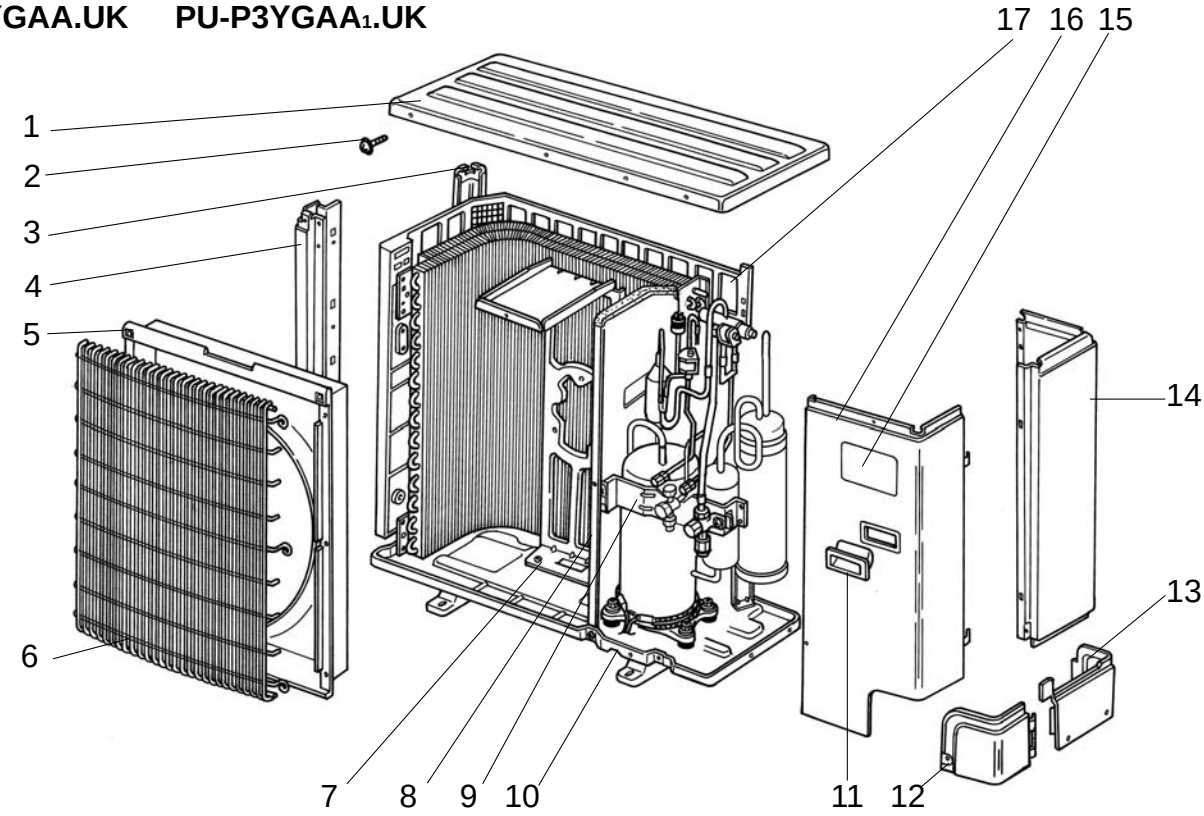
PUH-P2.5VGAA.UK PUH-P2.5VGAA$_1$.UK
PUH-P2.5YGAA.UK PUH-P2.5YGAA$_1$.UK
PU-P2.5VGAA.UK PU-P2.5VGAA$_1$.UK
PU-P2.5YGAA.UK PU-P2.5YGAA$_1$.UK



No.	Part No.	Part Name	Specificatio	Q'ty/set				Remarks (Drawing No.)	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P2.5 .UK		PU-P2.5 .UK					Unit	Amount
				VGAA VGAA$_1$	YGAA YGAA$_1$	VGAA VGAA$_1$	YGAA YGAA$_1$					
1	S70 30L 641	TOP PANEL		1	1	1	1					
2	—	F.ST SCREW	(5×15)	16	16	16	16	(DG12F536H15)				
3	S70 97W 613	REAR SUPPORT		1	1	1	1					
4	S70 E00 614	FRONT SUPPORT		1	1	1	1					
5	S70 36L 119	BELL MOUTH		1	1	1	1					
6	S70 E02 675	WIRE GRILL-M		1	1	1	1					
7	S70 97W 130	MOTOR SUPPORT		1	1	1	1					
8	—	SEPARATOR ASSY		1	1	1	1	(RG00R045G02)				
9	—	VALVE BED ASSY		1	1	1	1	(RG00R048G02)				
10	S70 E02 686	BASE		1	1	1	1					
11	S70 30L 655	PANEL HANDLE		2	2	2	2					
12	S70 31L 658	COVER PANEL-1		1	1	1	1					
13	S70 30L 658	COVER PANEL-2		1	1	1	1					
14	S70 E01 682	REAR PANEL		1	1	1	1					
15	S70 001 699	LABEL (MITSUBISHI)		1	1	1	1					
16	S70 E10 661	SERVICE PANEL		1								
	S70 E11 661	SERVICE PANEL			1							
	S70 E02 661	SERVICE PANEL				1						
	S70 E06 661	SERVICE PANEL					1					
17	S70 30L 698	REAR GUARD		1	1	1	1					

STRUCTURAL PARTS

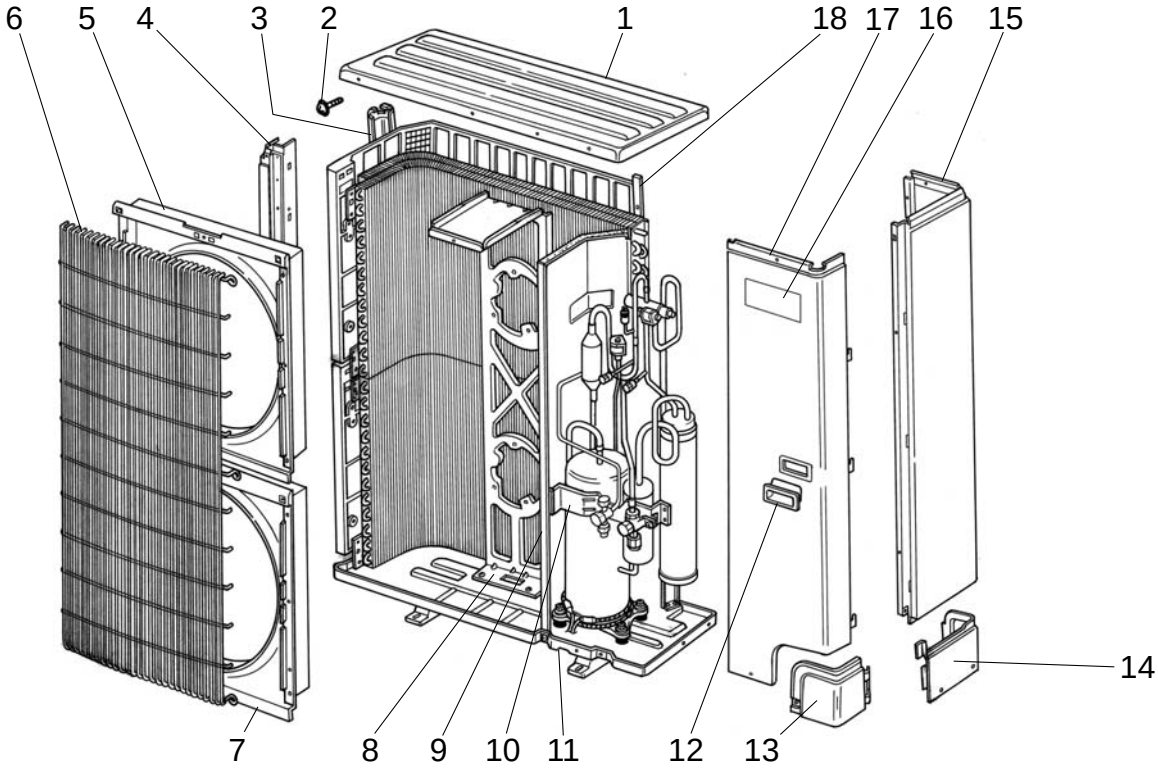
PUH-P3VGAA.UK PUH-P3VGAA$_1$.UK
PUH-P3YGAA.UK PUH-P3YGAA$_1$.UK
PU-P3VGAA.UK PU-P3VGAA$_1$.UK
PU-P3YGAA.UK PU-P3YGAA$_1$.UK



No.	Part No.	Part Name	Specificatio	Q'ty/set				Remarks (Drawing No.)	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P3 .UK		PU-P3 .UK					Unit	Amount
				VGAA VGAA$_1$	YGAA YGAA$_1$	VGAA VGAA$_1$	YGAA YGAA$_1$					
1	S70 30L 641	TOP PANEL		1	1	1	1					
2	—	F.ST SCREW	(5×15)	16	16	16	16	(DG12F536H15)				
3	S70 97W 613	REAR SUPPORT		1	1	1	1					
4	S70 E00 614	FRONT SUPPORT		1	1	1	1					
5	S70 36L 119	BELL MOUTH		1	1	1	1					
6	S70 E02 675	WIRE GRILL-M		1	1	1	1					
7	S70 97W 130	MOTOR SUPPORT		1	1	1	1					
8	—	SEPARATOR ASSY		1	1	1	1	(RG00R045G03)				
9	—	VALVE BED ASSY		1	1	1	1	(RG00R048G02)				
10	S70 E02 686	BASE		1	1	1	1					
11	S70 30L 655	PANEL HANDLE		2	2	2	2					
12	S70 31L 658	COVER PANEL-1		1	1	1	1					
13	S70 30L 658	COVER PANEL-2		1	1	1	1					
14	S70 E02 682	REAR PANEL		1	1	1	1					
15	S70 001 699	LABEL (MITSUBISHI)		1	1	1	1					
16	S70 E10 661	SERVICE PANEL		1								
	S70 E11 661	SERVICE PANEL			1							
	S70 E02 661	SERVICE PANEL				1						
	S70 E06 661	SERVICE PANEL					1					
17	S70 30L 698	REAR GUARD		1	1	1	1					

STRUCTURAL PARTS

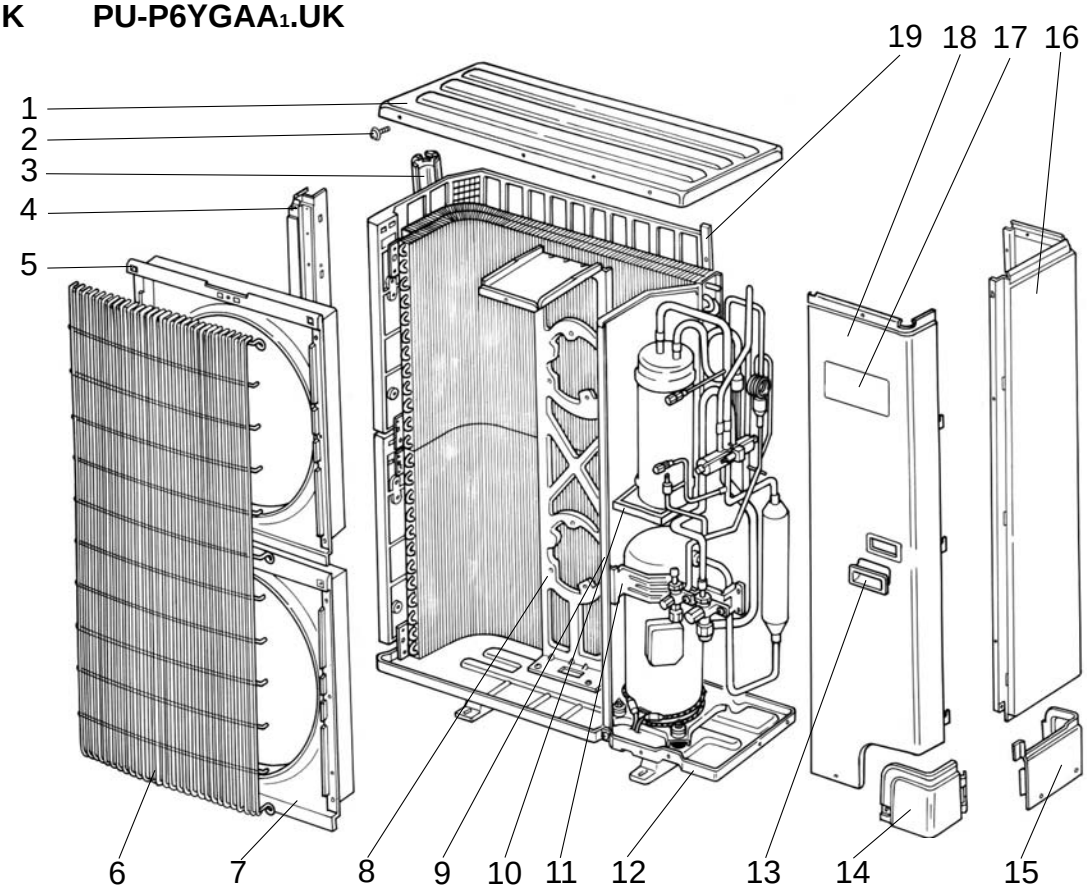
PUH-P4VGAA.UK PUH-P4VGAA$_1$.UK PU-P4VGAA.UK PU-P4VGAA$_1$.UK
PUH-P4YGAA.UK PUH-P4YGAA$_1$.UK PU-P4YGAA.UK PU-P4YGAA$_1$.UK



No.	Part No.	Part Name	Specification	Q'ty/set				Remarks (Drawing No.)	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P4 .UK		PU-P4 .UK					Unit	Amount
				VGAA VGAA$_1$	YGAA YGAA$_1$	VGAA VGAA$_1$	YGAA YGAA$_1$					
1	S70 30L 641	TOP PANEL		1	1	1	1					
2	—	F.ST SCREW	(5×15)	18	18	18	18	(DG12F536H15)				
3	S70 98W 613	REAR SUPPORT		1	1	1	1					
4	S70 E01 614	FRONT SUPPORT		1	1	1	1					
5	S70 41L 119	BELL MOUTH		1	1	1	1					
6	S70 E03 675	WIRE GRILL - L		1	1	1	1					
7	S70 30L 119	BELL MOUTH		1	1	1	1					
8	S70 42L 130	MOTOR SUPPORT		1	1	1	1					
9	—	SEPARATOR ASSY		1	1	1	1	(RG00R045G04)				
10	—	VALVE BED ASSY		1	1	1	1	(RG00R048G02)				
11	S70 E03 686	BASE		1	1	1	1					
12	S70 30L 655	PANEL HANDLE		2	2	2	2					
13	S70 31L 658	COVER PANEL-1		1	1	1	1					
14	S70 30L 658	COVER PANEL-2		1	1	1	1					
15	S70 E03 682	REAR PANEL		1	1	1	1					
16	S70 001 699	LABEL (MITSUBISHI)		1	1	1	1					
17	S70 E12 661	SERVICE PANEL		1								
	S70 E13 661	SERVICE PANEL			1							
	S70 E03 661	SERVICE PANEL				1						
	S70 E07 661	SERVICE PANEL					1					
18	S70 30L 698	REAR GUARD		2	2	2	2					

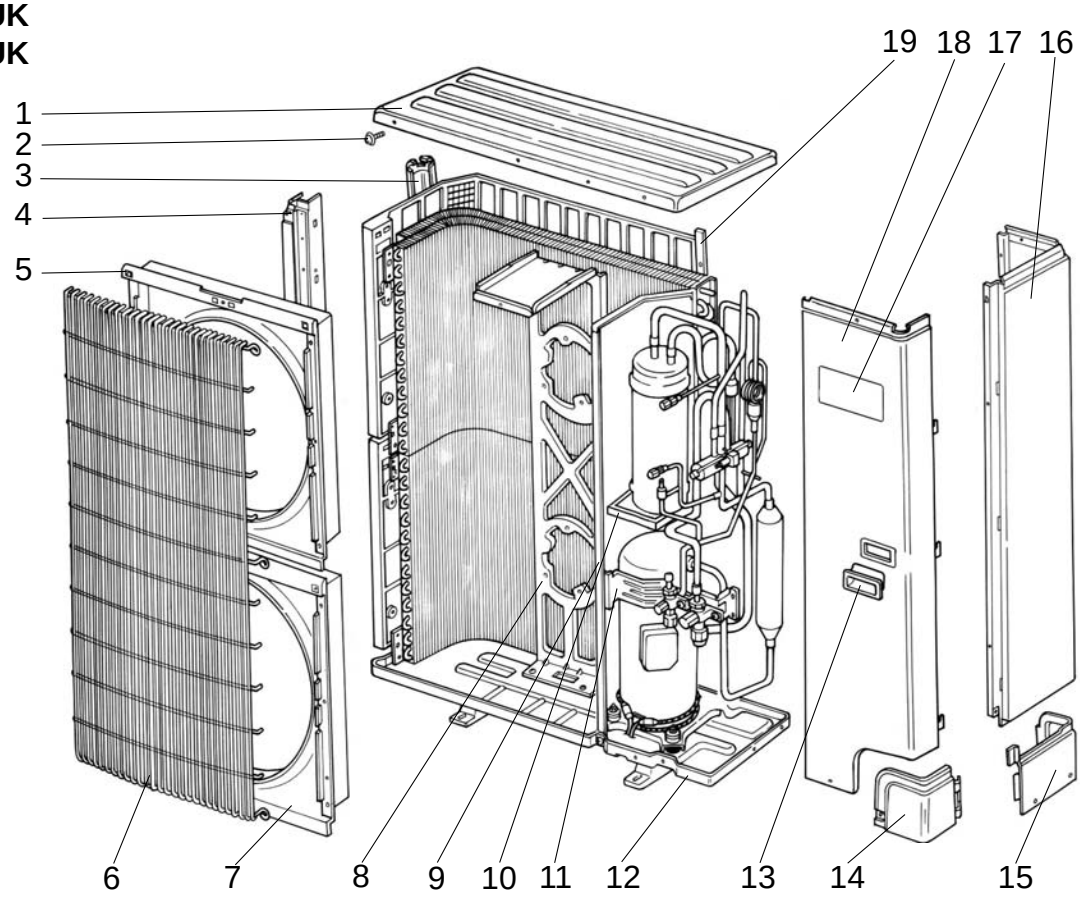
STRUCTURAL PARTS

PUH-P5YGAA.UK PUH-P5YGAA$_1$.UK
PUH-P6YGAA.UK PUH-P6YGAA$_1$.UK
PU-P5YGAA.UK PU-P5YGAA$_1$.UK
PU-P6YGAA.UK PU-P6YGAA$_1$.UK



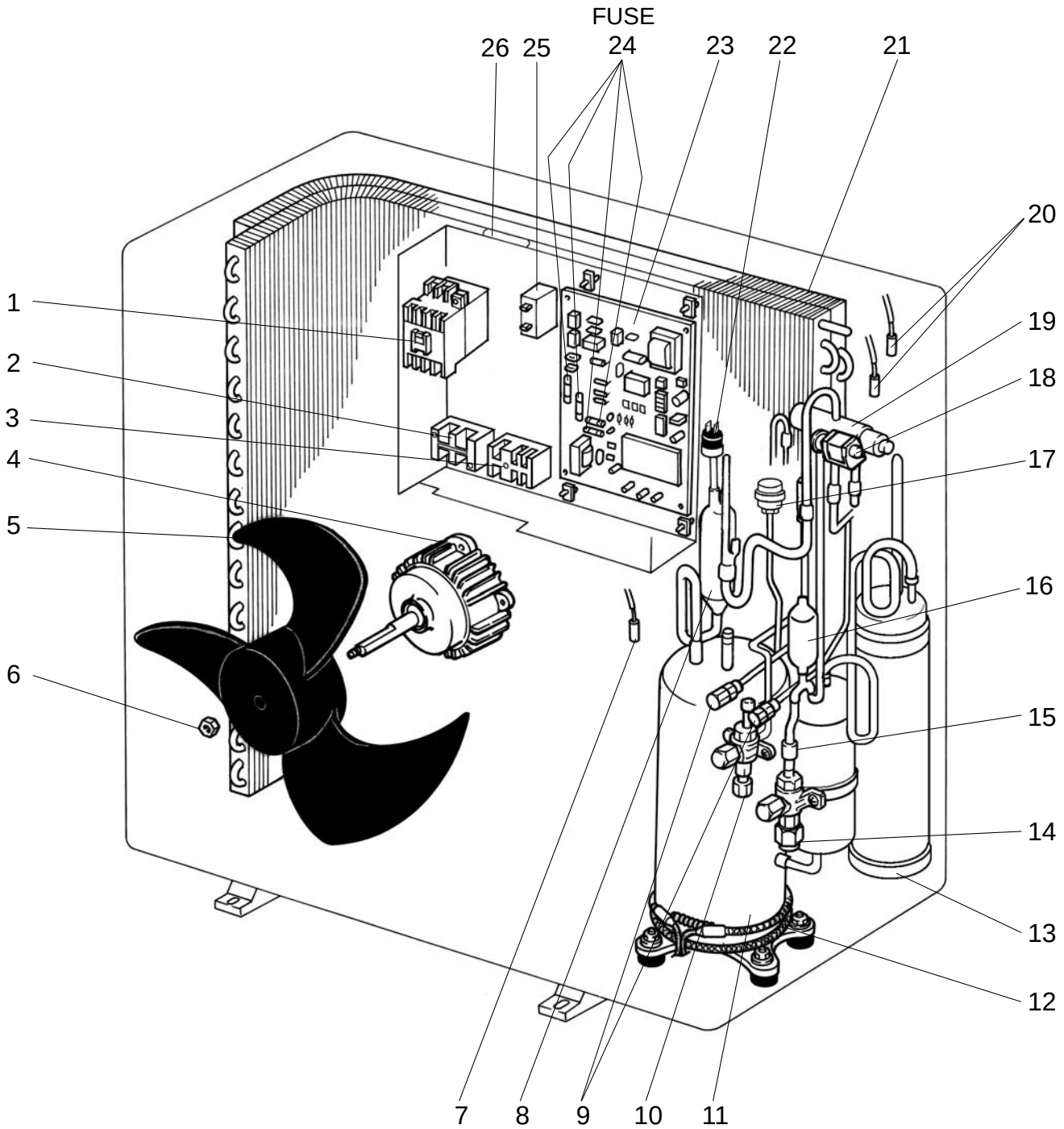
No.	Part No.	Part Name	Specification	Q'ty/set PUH-P5,6 YGAA.UK YGAA$_1$.UK	Q'ty/set PU-P5,6 YGAA.UK YGAA$_1$.UK	Remarks (Drawing No.)	Wiring Diagram Symbol	Recommended Q'ty	Price Unit	Price Amount
1	S70 17T 641	TOP PANEL		1	1					
2	—	F.ST SCREW	(5×15)	18	18	(DG12F536H15)				
3	S70 98W 613	REAR SUPPORT		1	1					
4	S70 17T 614	FRONT SUPPORT		1	1					
5	S70 41L 119	BELL MOUTH		1	1					
6	S70 E03 675	WIRE GRILL - L		1	1					
7	S70 30L 119	BELL MOUTH		1	1					
8	S70 42L 130	MOTOR SUPPORT		1	1					
9	—	SEPARATOR ASSY		1	1	(RG00R046G01)				
10	S70 A04 529	ACCUMULATOR DRAIN PAN		1	1					
11	—	VALVE BED ASSY		1	1	(RG00R048G03)				
12	S70 E04 686	BASE		1	1					
13	S70 30L 655	PANEL HANDLE		2	2					
14	S70 31L 658	COVER PANEL-1		1	1					
15	S70 30L 658	COVER PANEL-2		1	1					
16	S70 E04 682	REAR PANEL		1	1					
17	S70 001 699	LABEL(MITSUBISHI)		1	1					
18	S70 E14 661	SERVICE PANEL		1						
	S70 E04 661	SERVICE PANEL			1					
19	S70 17T 698	REAR GUARD		2	2					

STRUCTURAL PARTS
PUH-P5YGAA2.UK
PUH-P6YGAA2.UK
PU-P5YGAA2.UK
PU-P6YGAA2.UK



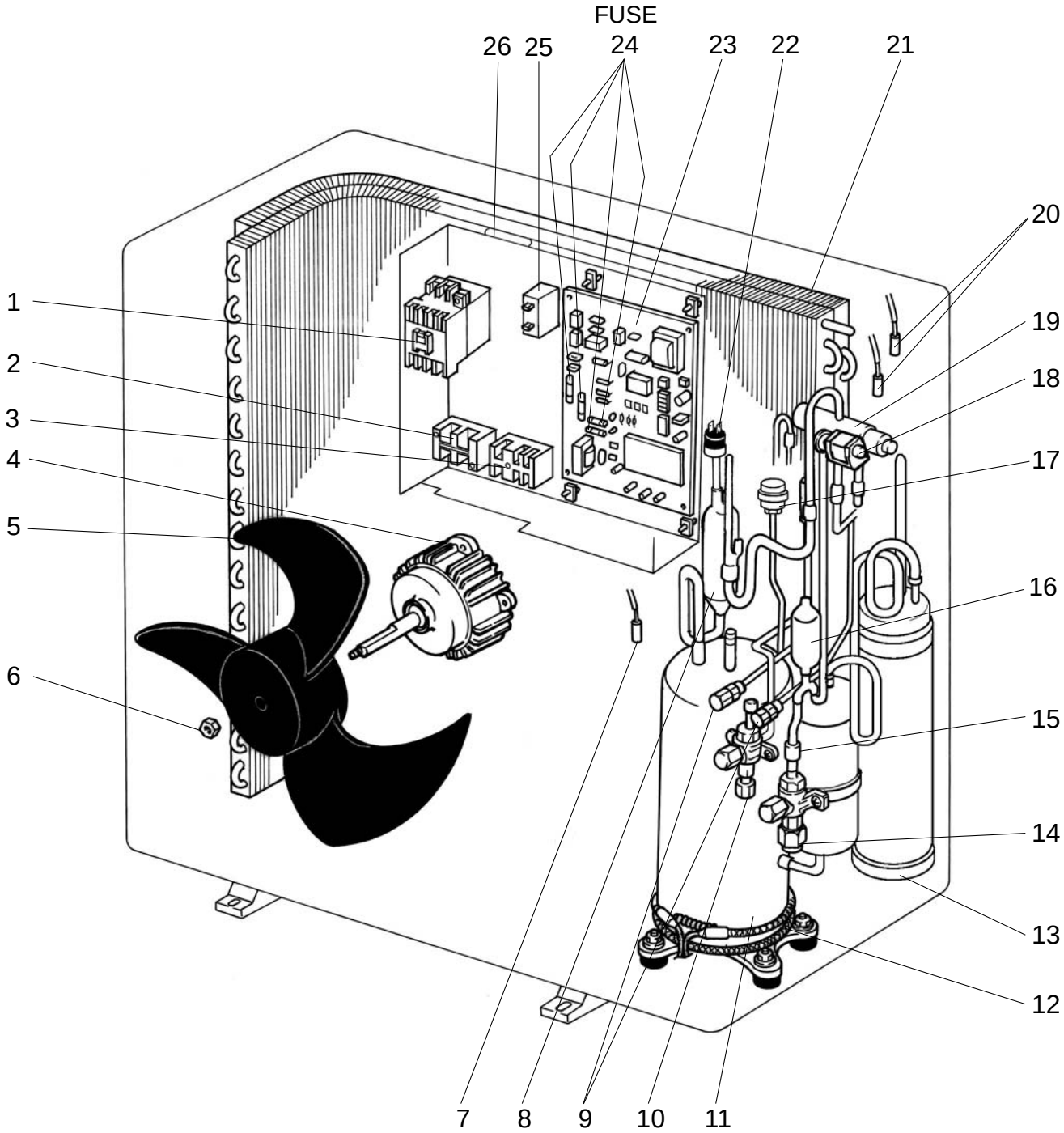
No.	Part No.	Part Name	Specification	Q'ty/set		Remarks (Drawing No.)	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P5,6 YGAA2.UK	PU-P5,6 YGAA2.UK				Unit	Amount
1	S70 17T 641	TOP PANEL		1	1					
2	S71 000 051	F.ST SCREW	(5×15)	18	18					
3	S70 98W 613	REAR SUPPORT		1	1					
4	S70 17T 614	FRONT SUPPORT		1	1					
5	S70 41L 119	BELL MOUTH		1	1					
6	S70 E03 675	WIRE GRILL - L		1	1					
7	S70 30L 119	BELL MOUTH		1	1					
8	S70 42L 130	MOTOR SUPPORT		1	1					
9	—	SEPARATOR ASSY		1	1	(RG00R046G03)				
10	S70 A04 529	ACCUMULATOR DRAIN PAN		1	1					
11	—	VALVE BED ASSY		1	1	(RG00R048G03)				
12	S70 H13 686	BASE		1	1					
13	S70 30L 655	PANEL HANDLE		2	2					
14	S70 31L 658	COVER PANEL-1		1	1					
15	S70 30L 658	COVER PANEL-2		1	1					
16	S70 E04 682	REAR PANEL		1	1					
17	S70 001 699	LABEL(MITSUBISHI)		1	1					
18	S70 H14 661	SERVICE PANEL		1						
	S70 H15 661	SERVICE PANEL			1					
19	S70 17T 698	REAR GUARD		2	2					

FUNCTIONAL PARTS
PUH-P1VGAA.UK
PUH-P1VGAA$_1$.UK



No.	Part No.	Part Name	Specification	Q'ty/set		Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P1V					Unit	Amount
				GAA.UK	GAA1.UK					
1	S70 249 708	CONTACTOR	S-U12 240V	1	1		52C			
2	S70 E03 716	TERMINAL BLOCK	2P(L,N)	1	1		TB1			
3	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1		TB2			
4	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1		MF			
5	S70 30L 115	PROPELLER FAN 4		1	1					
6	S70 30L 097	NUT	M8	1	1					
7	S70 E16 202	THERMISTOR (DISCHARGE)		1	1		TH4			
8	S70 E00 467	MUFFLER		1	1					
9	S70 E00 413	CHARGE PLUG		2	2					
10	S70 400 418	STOP VALVE(LIQUID)	1/4˝	1	1					
11	S70 061 400	COMPRESSOR	RE189VHSMT	1	1		MC			
12	S70 E02 236	CRANKCASE HEATER	240V / 30W	1	1		CH			
13	S70 E02 440	ACCUMULATOR		1	1					
14	S70 E01 411	BALL VALVE	1/2˝	1	1					
15	S70 66L 450	STRAINER	#50-12	1	1					
16	S70 E03 405	FILTER DRYER		1						
17	S70 E03 401	LINEAR EXPANSION VALVE		1	1		LEV			
18	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1		21S4			
19	S70 E01 403	4-WAY VALVE (REVERSING)		1	1					
20	S70 E15 202	THERMISTOR (LIQUID , CONDENSER / EVAPORATOR)		1	1		TH3, TH6			
21	S70 E99 408	HEAT EXCHANGER		1	1					
22	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1		63H			
23	S70 31L 315	OUTDOOR CONTROLLER BOARD		1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF 440V	1	1		C3			
26	S70 E00 723	COMPRESSOR CAPACITOR	30μF 420V	1	1		C5			

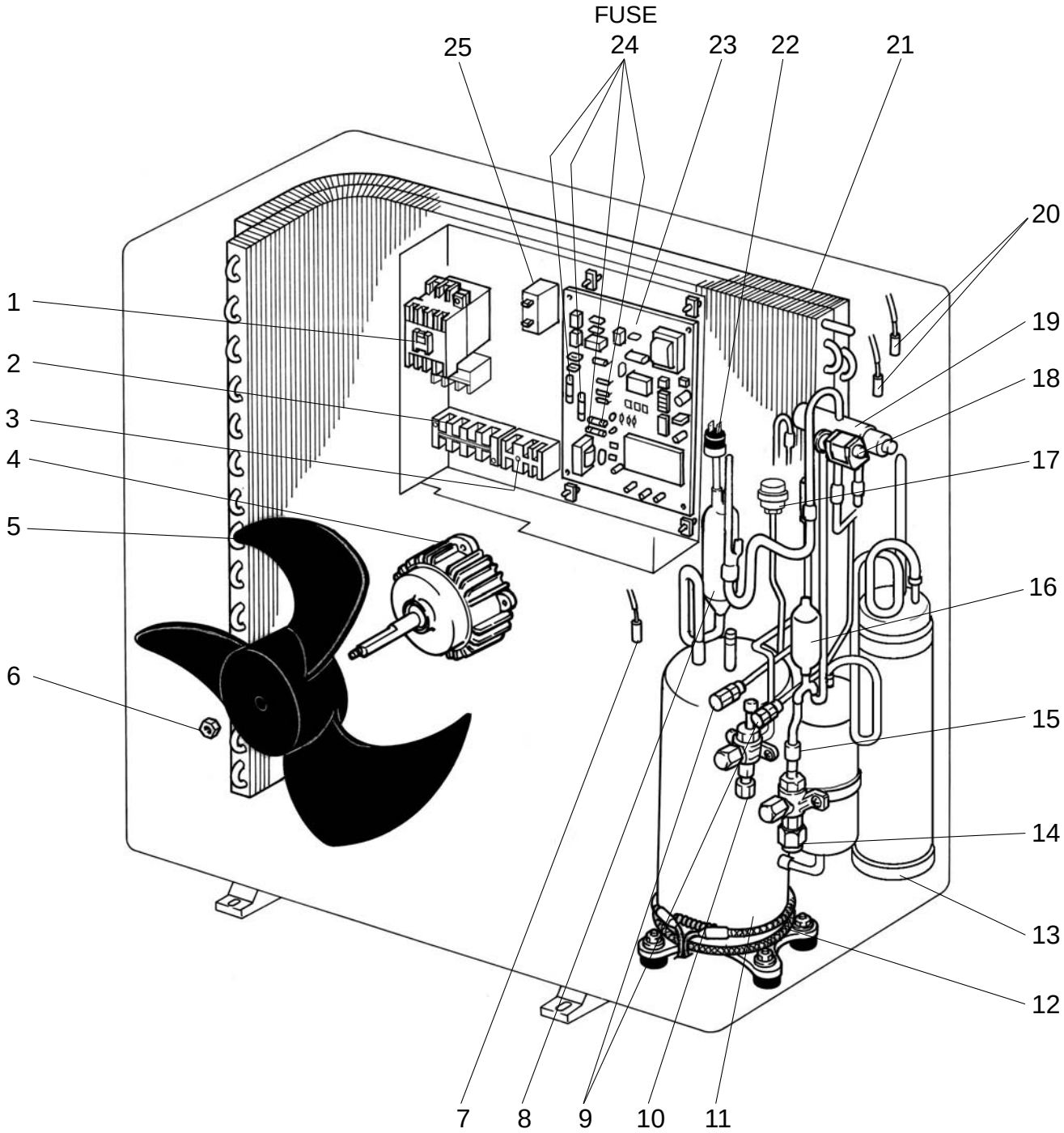
FUNCTIONAL PARTS
PUH-P1.6VGAA.UK PUH-P1.6VGAA$_1$.UK
PU-P1.6VGAA.UK PU-P1.6VGAA$_1$.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P1.6V		PU-P1.6V					Unit	Amount
				GAA.UK	GAA$_1$.UK	GAA.UK	GAA$_1$.UK					
1	S70 249 708	CONTACTOR	S-U12 240V	1	1	1	1		52C			
2	S70 E03 716	TERMINAL BLOCK	2P(L,N)	1	1	1	1		TB1			
3	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
4	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
5	S70 30L 115	PROPELLER FAN 4		1	1	1	1					
6	S70 30L 097	NUT	M8	1	1	1	1					
7	S70 E16 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
8	S70 E00 467	MUFFLER		1	1	1	1					
9	S70 E00 413	CHARGE PLUG		2	2	2	2					
10	S70 200 418	STOP VALVE(LIQUID)	3/8˝	1	1	1	1					
11	S70 062 400	COMPRESSOR	RE277VHSMT	1	1	1	1		MC			
12	S70 E02 236	CRANKCASE HEATER	240V / 30W	1	1	1	1		CH			
13	S70 E02 440	ACCUMULATOR		1	1	1	1					
14	S70 E03 411	BALL VALVE	5/8˝	1	1	1	1					
15	S70 66L 450	STRAINER	#50-12	1	1	1	1					
16	S70 E03 405	FILTER DRYER		1		1						
17	S70 E03 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
18	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
19	S70 E01 403	4-WAY VALVE (REVERSING)		1	1							
20	S70 E15 202	THERMISTOR (LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
21	S70 E00 408	HEAT EXCHANGER		1	1	1	1					
22	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
23	S70 31L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF 440V	1	1	1	1		C3			
26	S70 E01 723	COMPRESSOR CAPACITOR	40μF 400V	1	1	1	1		C5			
(27)	S70 30L 450	STRAINER	#50-9.52	1		1						

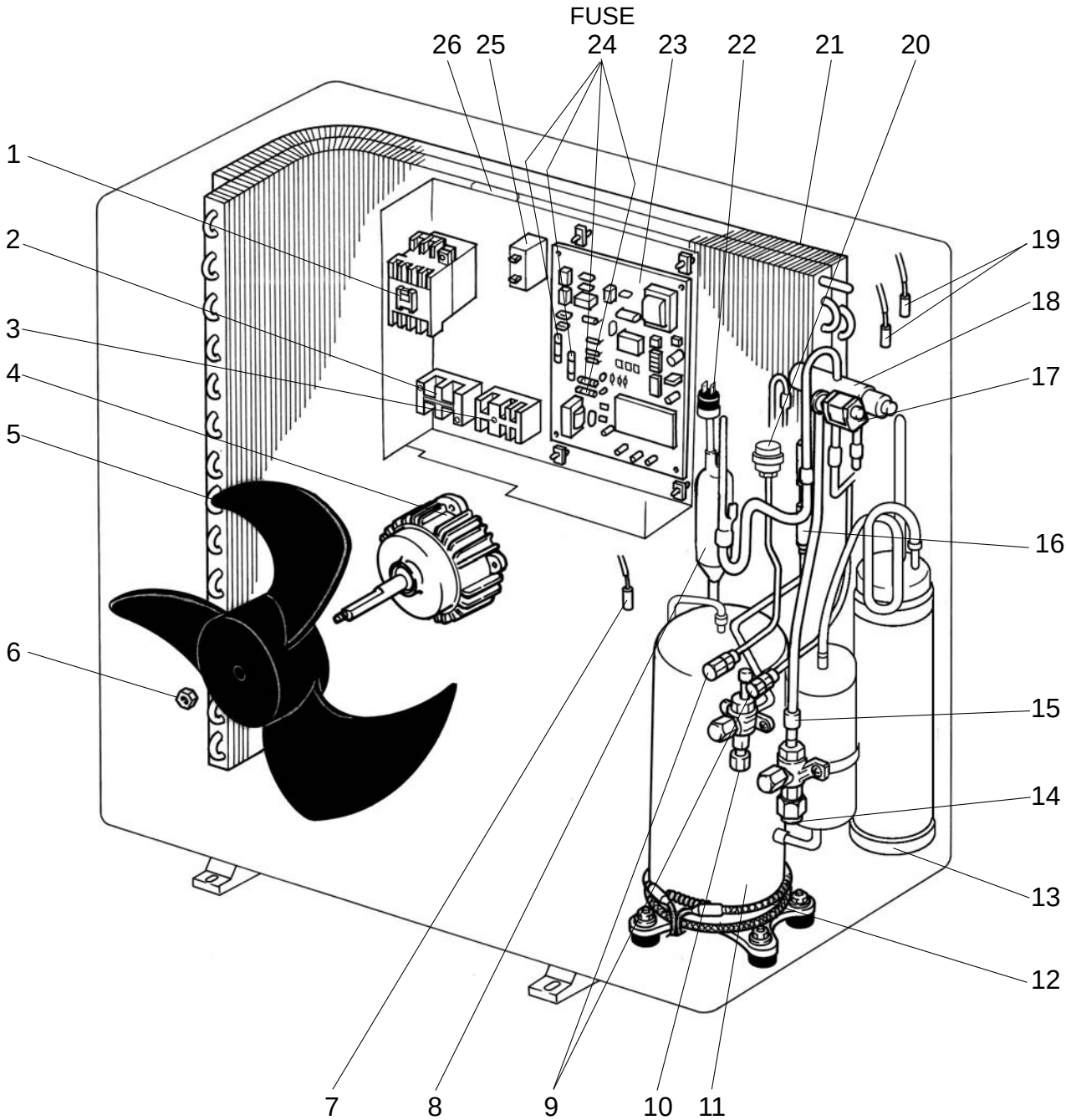
FUNCTIONAL PARTS
PUH-P1.6YGAA.UK PUH-P1.6YGAA$_1$.UK
PU-P1.6YGAA.UK PU-P1.6YGAA$_1$.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wining Diagram Symbol	Recommended Q'ty	Price	
				PUH-P1.6Y		PU-P1.6Y					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 250 708	CONTACTOR	MSO-N11	1	1	1	1		51C,52C			
2	S70 E03 716	TERMINAL BLOCK	4P(L1,L2,L3,N)	1	1	1	1		TB1			
3	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
4	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
5	S70 30L 115	PROPELLER FAN 4		1	1	1	1					
6	S70 30L 097	NUT	M8	1	1	1	1					
7	S70 E16 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
8	S70 E00 467	MUFFLER		1	1							
9	S70 E00 413	CHARGE PLUG		2	2	2	2					
10	S70 200 418	STOP VALVE(LIQUID)	3/8˝	1	1	1	1					
11	S70 063 400	COMPRESSOR	RE277YFKM	1	1	1	1		MC			
12	S70 E02 236	CRANKCASE HEATER	240V / 38W	1	1	1	1		CH			
13	S70 E02 440	ACCUMULATOR		1	1	1	1					
14	S70 E03 411	BALL VALVE	5/8˝	1	1	1	1					
15	S70 66L 450	STRAINER	#50-12	1	1	1	1					
16	S70 E03 405	FILTER DRYER		1		1						
17	S70 E03 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
18	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
19	S70 E01 403	4-WAY VALVE (REVERSING)		1	1							
20	S70 E15 202	THERMISTOR (LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
21	S70 E00 408	HEAT EXCHANGER		1	1	1	1					
22	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
23	S70 32L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF 440V	1	1	1	1		C3			
(26)	S70 30L 450	STRAINER	#50-9.52	1		1						

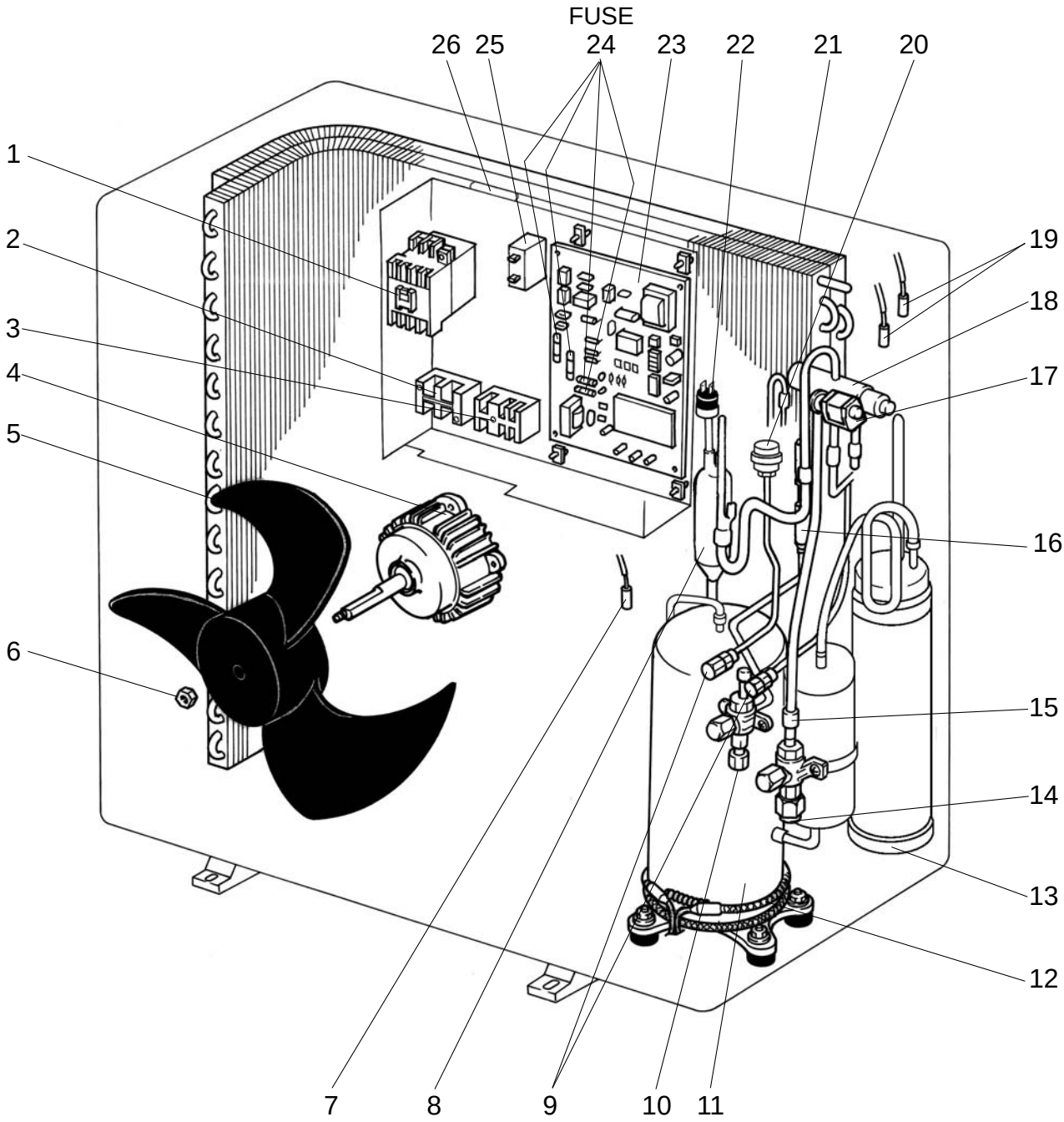
FUNCTIONAL PARTS
PUH-P2VGAA.UK PUH-P2VGAA1.UK
PU-P2VGAA.UK PU-P2VGAA1.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wiring Diagram Symbol	Recom-mended Q'ty	Price	
				PUH-P2V		PU-P2V					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 330 708	CONTACTOR	S-N18EX	1	1	1	1		52C			
2	S70 E03 716	TERMINAL BLOCK	2P(L,N)	1	1	1	1		TB1			
3	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
4	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
5	S70 30L 115	PROPELLER FAN 4		1	1	1	1					
6	S70 30L 097	NUT	M8	1	1	1	1					
7	S70 E16 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
8	S70 36L 467	MUFFLER		1	1							
9	S70 E00 413	CHARGE PLUG		2	2	2	2					
10	S70 300 418	STOP VALVE (LIQUID)	3/8˝	1	1	1	1					
11	S70 064 400	COMPRESSOR	NE36VMJMT	1	1	1	1		MC			
12	S70 E04 236	CRANKCASE HEATER	240V / 38W	1	1	1	1		CH			
13	S70 E04 440	ACCUMULATOR		1	1	1	1					
14	S70 E04 411	BALL VALVE	5/8˝	1	1	1	1					
15	S70 36L 450	STRAINER	#50-16	1	1	1	1					
16	S70 E03 405	FILTER DRYER		1		1						
17	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
18	S70 A00 403	4-WAY VALVE (REVERSING)		1	1							
19	S70 E15 202	THERMISTOR(LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
20	S70 E02 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
21	S70 E02 408	HEAT EXCHANGER		1	1	1	1					
22	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
23	S70 31L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF × 440V	1	1	1	1		C3			
26	S70 100 723	COMPRESSOR CAPACITOR	50μF × 420V	1	1	1	1		C5			
(27)	S70 30L 450	STRAINER	#50-9.52	1		1						

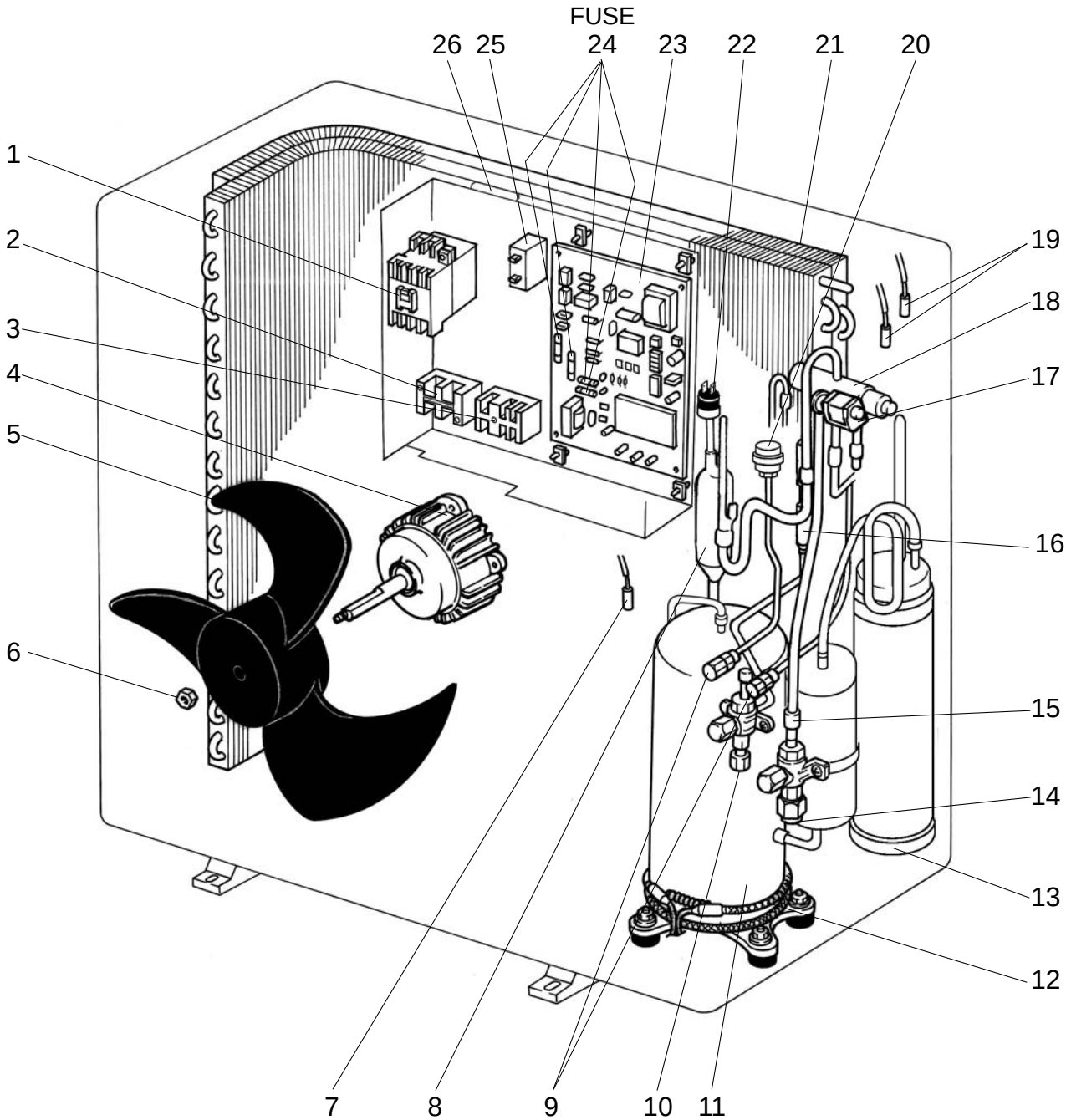
FUNCTIONAL PARTS
PUH-P2.5VGAA.UK PUH-P2.5VGAA1.UK
PU-P2.5VGAA.UK PU-P2.5VGAA1.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P2.5V		PU-P2.5V					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 330 708	CONTACTOR	S-N18EX	1	1	1	1		52C			
2	S70 E03 716	TERMINAL BLOCK	2P(L,N)	1	1	1	1		TB1			
3	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
4	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
5	S70 30L 115	PROPELLER FAN 4		1	1	1	1					
6	S70 30L 097	NUT	M8	1	1	1	1					
7	S70 E16 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
8	S70 36L 467	MUFFLER		1	1							
9	S70 E00 413	CHARGE PLUG		2	2	2	2					
10	S70 300 418	STOP VALVE (LIQUID)	3/8˝	1	1	1	1					
11	S70 066 400	COMPRESSOR	NE41VMJMT	1	1	1	1		MC			
12	S70 E04 236	CRANKCASE HEATER	240V / 38W	1	1	1	1		CH			
13	S70 E03 440	ACCUMULATOR		1	1	1	1					
14	S70 E04 411	BALL VALVE	5/8˝	1	1	1	1					
15	S70 36L 450	STRAINER	#50-16	1	1	1	1					
16	S70 E03 405	FILTER DRYER		1		1						
17	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
18	S70 A00 403	4-WAY VALVE (REVERSING)		1	1							
19	S70 E15 202	THERMISTOR(LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
20	S70 E02 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
21	S70 E01 408	HEAT EXCHANGER		1	1	1	1					
22	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
23	S70 31L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF × 440V	1	1	1	1		C3			
26	S70 869 723	COMPRESSOR CAPACITOR	45μF × 440V	1	1	1	1		C5			
(27)	S70 30L 450	STRAINER	#50-9.52	1		1						

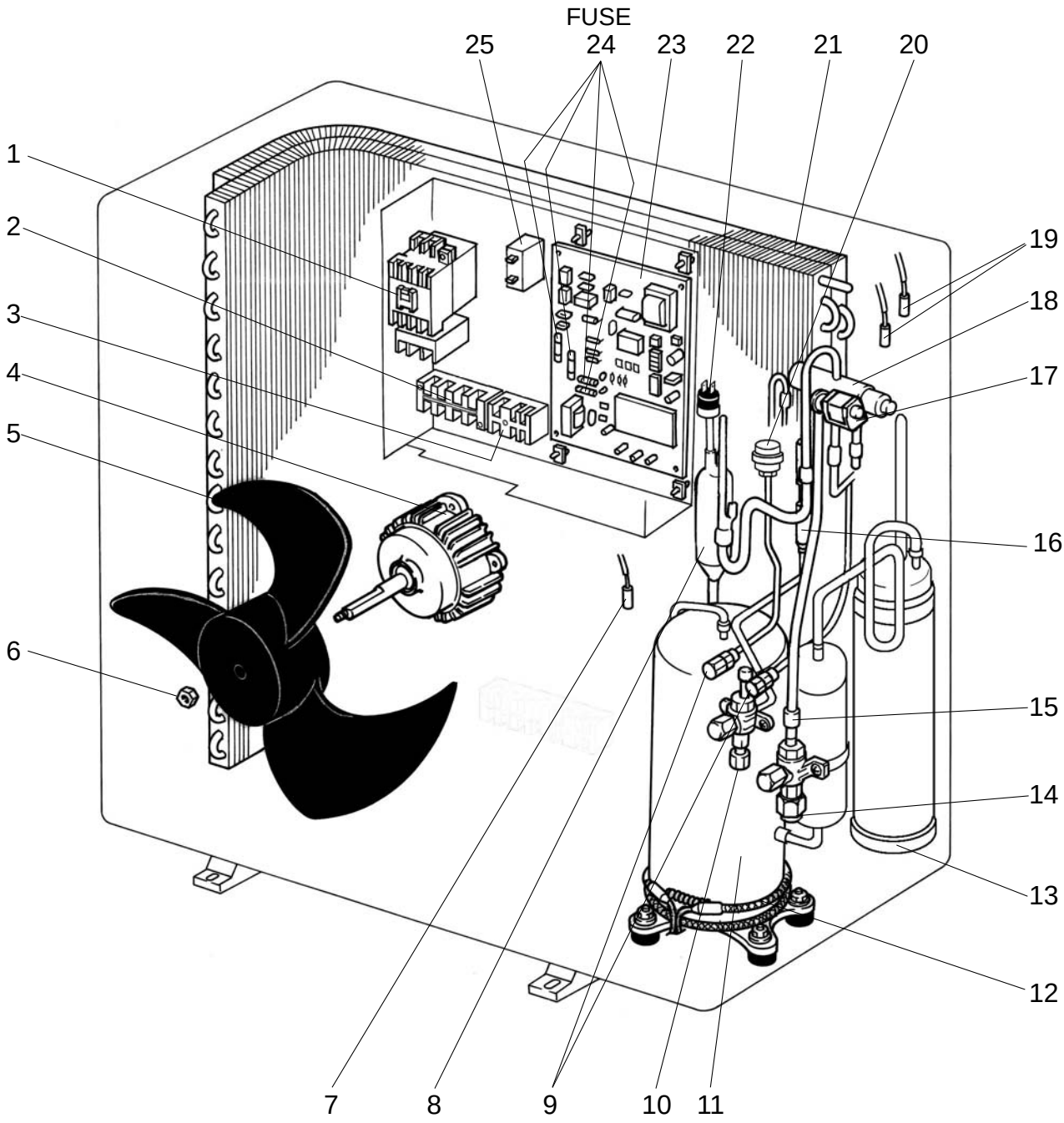
FUNCTIONAL PARTS
PUH-P3VGAA.UK PUH-P3VGAA$_1$.UK
PU-P3VGAA.UK PU-P3VGAA$_1$.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wiring Diagram Symbol	Recom-mended Q'ty	Price	
				PUH-P3V		PU-P3V					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 330 708	CONTACTOR	S-N18EX	1	1	1	1		52C			
2	S70 E03 716	TERMINAL BLOCK	2P(L,N)	1	1	1	1		TB1			
3	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
4	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
5	S70 30L 115	PROPELLER FAN 4		1	1	1	1					
6	S70 30L 097	NUT	M8	1	1	1	1					
7	S70 E16 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
8	S70 36L 467	MUFFLER		1	1							
9	S70 E00 413	CHARGE PLUG		2	2	2	2					
10	S70 300 418	STOP VALVE (LIQUID)	3/8˝	1	1	1	1					
11	S70 068 400	COMPRESSOR	NE52VNJMT	1	1	1	1		MC			
12	S70 E04 236	CRANKCASE HEATER	240V / 38W	1	1	1	1		CH			
13	S70 E03 440	ACCUMULATOR		1	1	1	1					
14	S70 E04 411	BALL VALVE	5/8˝	1	1	1	1					
15	S70 36L 450	STRAINER	#50-16	1	1	1	1					
16	S70 E03 405	FILTER DRYER		1		1						
17	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
18	S70 A00 403	4-WAY VALVE (REVERSING)		1	1							
19	S70 E15 202	THERMISTOR(LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
20	S70 E02 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
21	S70 E03 408	HEAT EXCHANGER		1	1	1	1					
22	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
23	S70 31L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF × 440V	1	1	1	1		C3			
26	S70 976 723	COMPRESSOR CAPACITOR	60μF × 450V	1	1	1	1		C5			
(27)	S70 30L 450	STRAINER	#50-9.52	1		1						

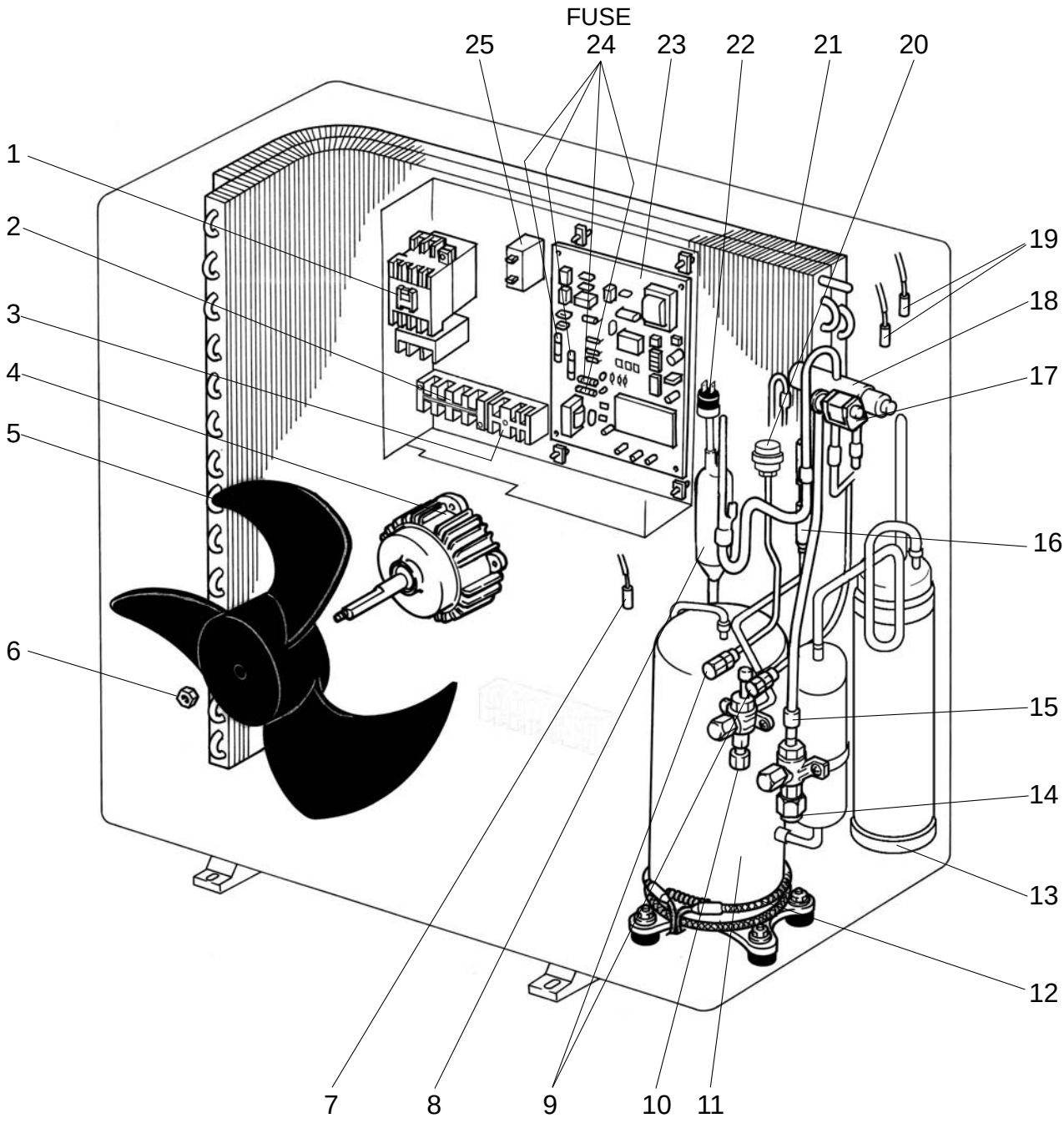
FUNCTIONAL PARTS
PUH-P2YGAA.UK PUH-P2YGAA$_1$.UK
PU-P2YGAA.UK PU-P2YGAA$_1$.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P2Y		PU-P2Y					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 332 708	CONTACTOR	MSO-N11	1	1	1	1		51C,52C			
2	S70 E10 716	TERMINAL BLOCK	4P(L1,L2,L3,N)	1	1	1	1		TB1			
3	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
4	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
5	S70 30L 115	PROPELLER FAN 4		1	1	1	1					
6	S70 30L 097	NUT	M8	1	1	1	1					
7	S70 E16 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
8	S70 36L 467	MUFFLER		1	1							
9	S70 E00 413	CHARGE PLUG		2	2	2	2					
10	S70 300 418	STOP VALVE (LIQUID)	3/8˝	1	1	1	1					
11	S70 065 400	COMPRESSOR	NE36YEKMT	1	1	1	1		MC			
12	S70 E04 236	CRANKCASE HEATER	240V 38W	1	1	1	1					
13	S70 E04 440	ACCUMULATOR		1	1	1	1					
14	S70 E04 411	BALL VALVE	5/8˝	1	1	1	1		CH			
15	S70 36L 450	STRAINER	#50-16	1	1	1	1					
16	S70 E03 405	FILTER DRYER		1		1						
17	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
18	S70 A00 403	4-WAY VALVE (REVERSING)		1	1							
19	S70 E15 202	THERMISTOR(LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
20	S70 E02 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
21	S70 E02 408	HEAT EXCHANGER		1	1	1	1					
22	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
23	S70 32L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF × 440V	1	1	1	1		C3			
㉖	S70 30L 450	STRAINER	#50-9.52	1		1						

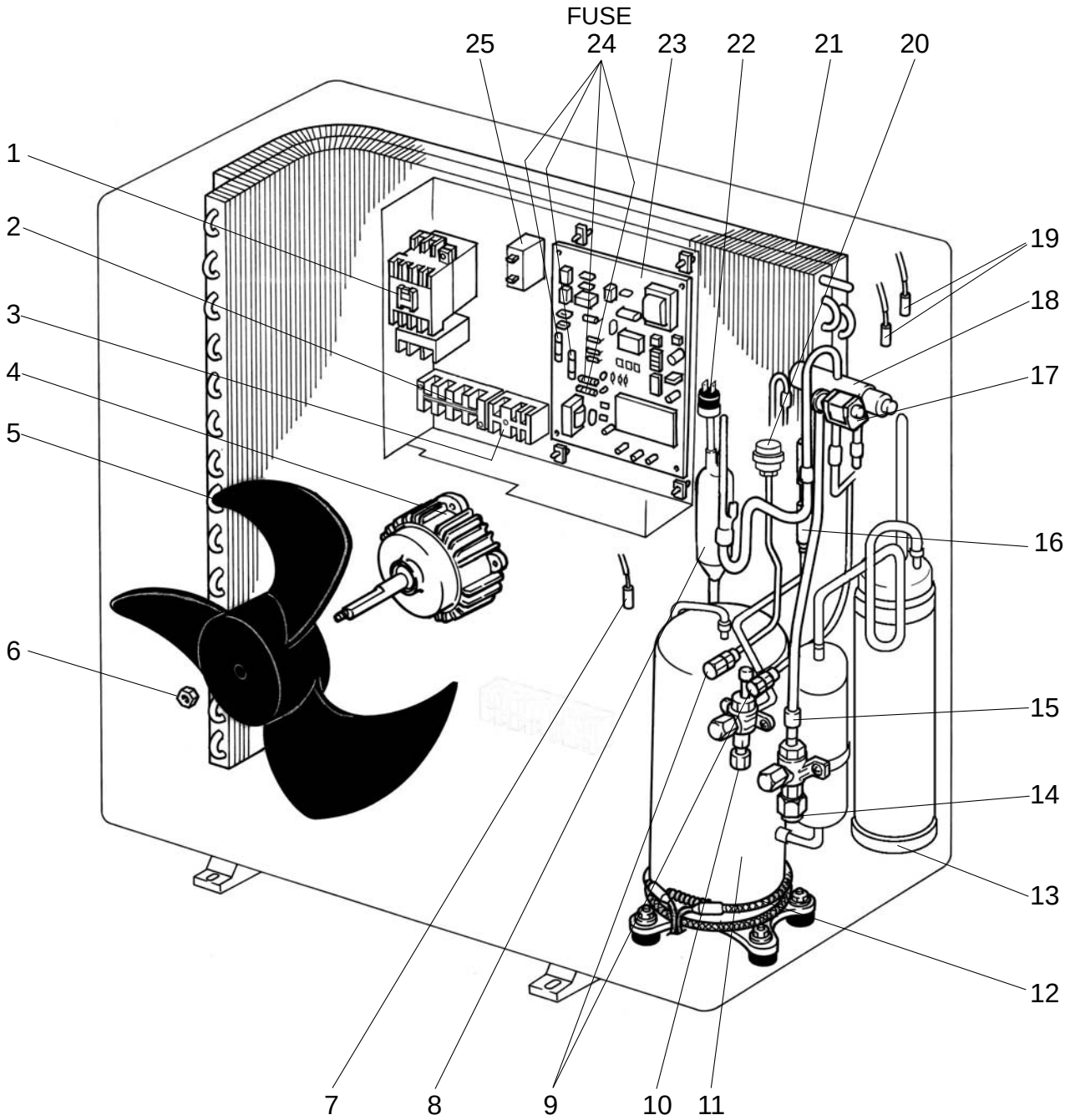
FUNCTIONAL PARTS
PUH-P2.5YGAA.UK PUH-P2.5YGAA$_1$.UK
PU-P2.5YGAA.UK PU-P2.5YGAA$_1$.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P2.5Y		PU-P2.5Y					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 333 708	CONTACTOR	MSO-N11	1	1	1	1		51C,52C			
2	S70 E10 716	TERMINAL BLOCK	4P(L1,L2,L3,N)	1	1	1	1		TB1			
3	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
4	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
5	S70 30L 115	PROPELLER FAN 4		1	1	1	1					
6	S70 30L 097	NUT	M8	1	1	1	1					
7	S70 E16 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
8	S70 36L 467	MUFFLER		1	1							
9	S70 E00 413	CHARGE PLUG		2	2	2	2					
10	S70 300 418	STOP VALVE (LIQUID)	3/8˝	1	1	1	1					
11	S70 067 400	COMPRESSOR	NE41YEKMT	1	1	1	1		MC			
12	S70 E04 236	CRANKCASE HEATER	240V / 38W	1	1	1	1					
13	S70 E03 440	ACCUMULATOR		1	1	1	1					
14	S70 E04 411	BALL VALVE	5/8˝	1	1	1	1		CH			
15	S70 36L 450	STRAINER	#50-16	1	1	1	1					
16	S70 E03 405	FILTER DRYER		1		1						
17	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
18	S70 A00 403	4-WAY VALVE (REVERSING)		1	1							
19	S70 E15 202	THERMISTOR(LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
20	S70 E02 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
21	S70 E01 408	HEAT EXCHANGER		1	1	1	1					
22	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
23	S70 32L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF × 440V	1	1	1	1		C3			
㉖	S70 30L 450	STRAINER	#50-9.52	1		1						

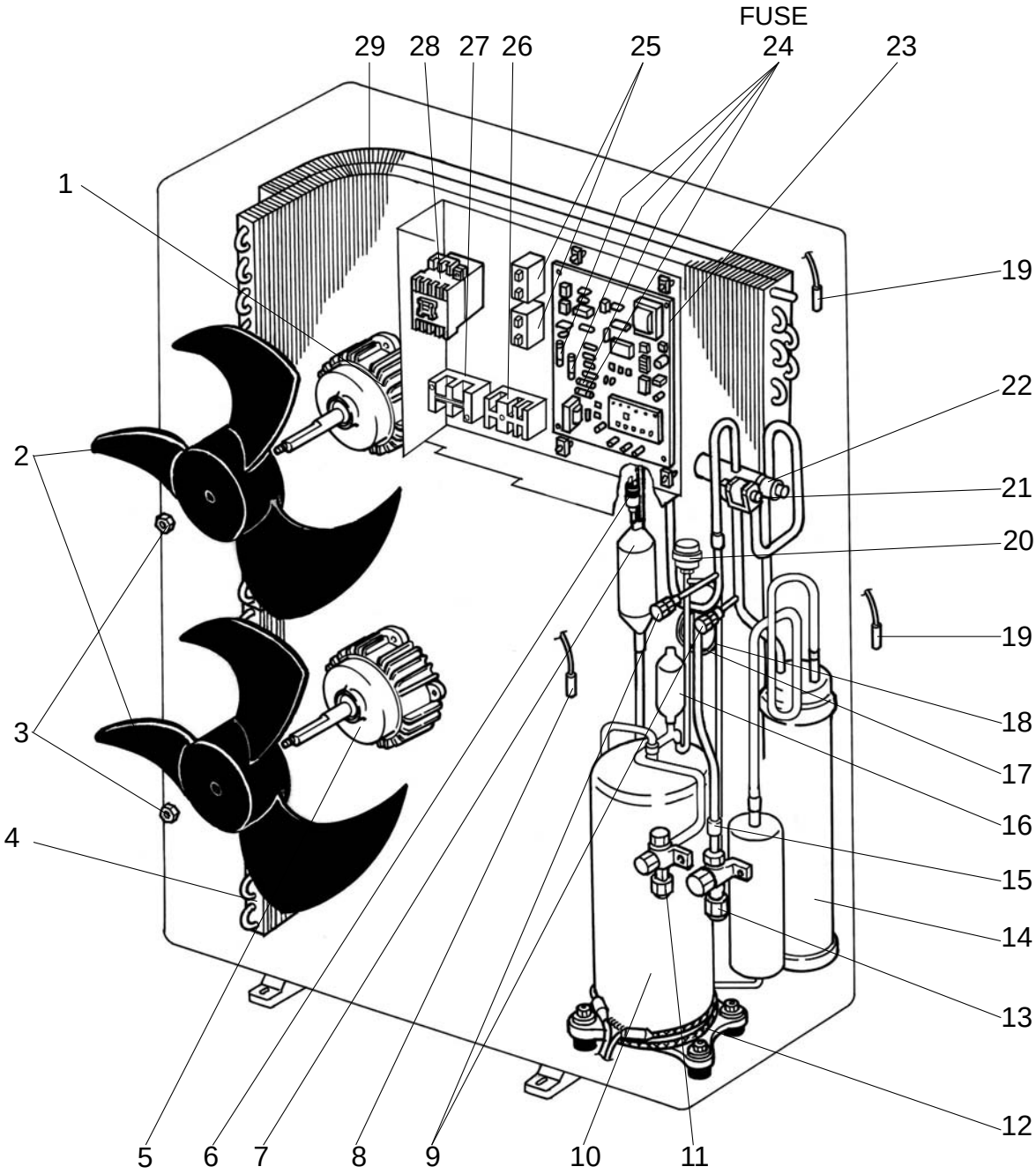
FUNCTIONAL PARTS
PUH-P3YGAA.UK PUH-P3YGAA$_1$.UK
PU-P3YGAA.UK PU-P3YGAA$_1$.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P3Y		PU-P3Y					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 331 708	CONTACTOR	MSO-N11	1	1	1	1		51C,52C			
2	S70 E10 716	TERMINAL BLOCK	4P(L1,L2,L3,N)	1	1	1	1		TB1			
3	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
4	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
5	S70 30L 115	PROPELLER FAN 4		1	1	1	1					
6	S70 30L 097	NUT	M8	1	1	1	1					
7	S70 E16 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
8	S70 36L 467	MUFFLER		1	1							
9	S70 E00 413	CHARGE PLUG		2	2	2	2					
10	S70 300 418	STOP VALVE (LIQUID)	3/8˝	1	1	1	1					
11	S70 069 400	COMPRESSOR	NE52YDKMT	1	1	1	1		MC			
12	S70 E04 236	CRANKCASE HEATER	240V / 38W	1	1	1	1					
13	S70 E03 440	ACCUMULATOR		1	1	1	1					
14	S70 E04 411	BALL VALVE	5/8˝	1	1	1	1		CH			
15	S70 36L 450	STRAINER	#50-16	1	1	1	1					
16	S70 E03 405	FILTER DRYER		1		1						
17	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
18	S70 A00 403	4-WAY VALVE (REVERSING)		1	1							
19	S70 E15 202	THERMISTOR(LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
20	S70 E02 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
21	S70 E03 408	HEAT EXCHANGER		1	1	1	1					
22	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
23	S70 32L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF × 440V	1	1	1	1		C3			
㉖	S70 30L 450	STRAINER	#50-9.52	1		1						

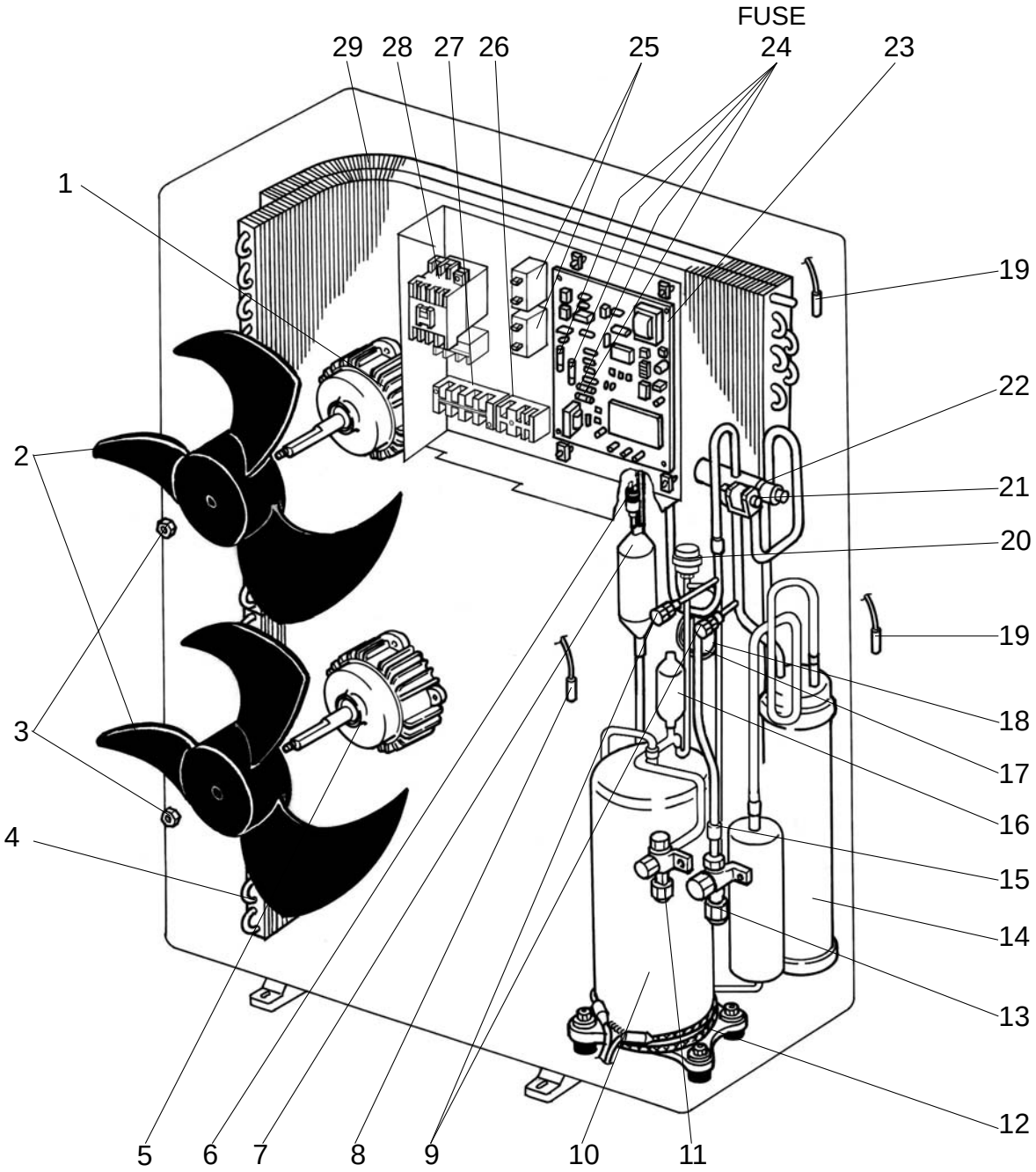
FUNCTIONAL PARTS
PUH-P4VGAA.UK PUH-P4VGAA1.UK
PU-P4VGAA.UK PU-P4VGAA1.UK



Part number that are circled are not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P4V		PU-P4V					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
2	S70 30L 115	PROPELLER FAN 4		2	2	2	2					
3	S70 30L 097	NUT	M8	2	2	2	2					
4	S70 E05 408	HEAT EXCHANGER		1	1	1	1					
5	S70 E04 763	OUTDOOR FAN MOTOR	N02A672MT	1	1	1	1		MF			
6	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
7	S70 42L 467	MUFFLER		1	1							
8	S70 E18 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
9	S70 E00 413	CHARGE PLUG		2	2	2	2					
10	S70 071 400	COMPRESSOR	NE56VNJMT	1	1	1	1		MC			
11	S70 300 418	STOP VALVE (LIQUID)	3/8˝	1	1	1	1					
12	S70 E05 236	CRANKCASE HEATER	240V / 38W	1	1	1	1		CH			
13	S70 E05 411	BALL VALVE	3/4˝	1	1	1	1					
14	S70 E05 440	ACCUMULATOR		1	1	1	1					
15	S70 42L 450	STRAINER	#50-19.1	1	1	1	1					
16	S70 E03 405	FILTER DRYER		1		1						
17	S70 E01 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 350mm	1	1	1	1					
18	S70 E02 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 350mm	1	1	1	1					
19	S70 E14 202	THERMISTOR(LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
20	S70 E05 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
21	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
22	S70 260 403	4-WAY VALVE (REVERSING)		1	1							
23	S70 31L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF × 440V	2	2	2	2		C3, C4			
26	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
27	S70 E03 716	TERMINAL BLOCK	2P(L,N)	1	1	1	1		TB1			
28	S70 330 708	CONTACTOR	S-N18EX	1	1	1	1		52C			
29	S70 E04 408	HEAT EXCHANGER		1	1	1	1					
(30)	S70 30L 450	STRAINER	#50-9.52	1		1						
(31)	S70 976 723	COMPRESSOR CAPACITOR	60μF × 450V	1		1			C5			

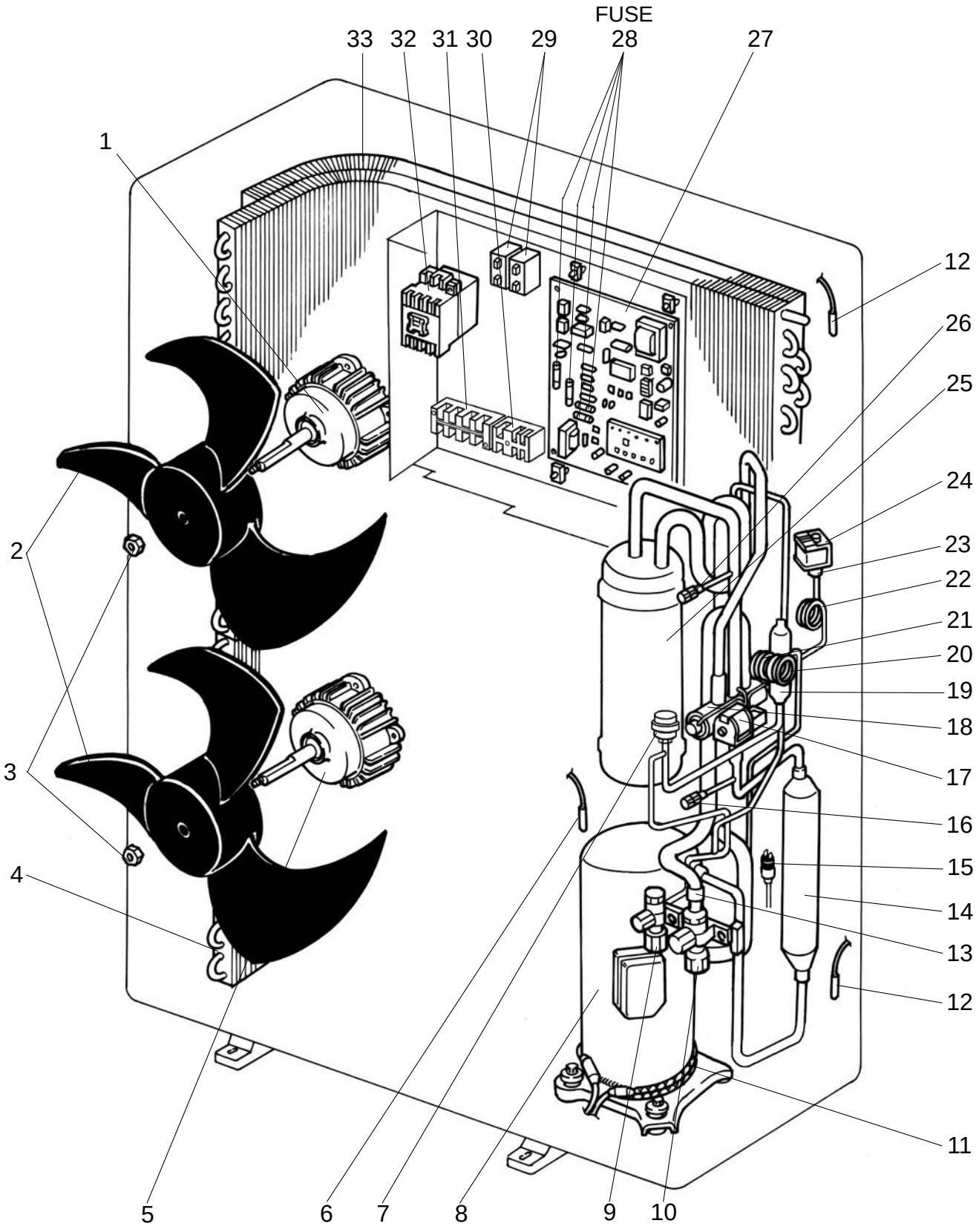
FUNCTIONAL PARTS
PUH-P4YGAA.UK PUH-P4YGAA$_1$.UK
PU-P4YGAA.UK PU-P4YGAA$_1$.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wining Diagram Symbol	Recommended Q'ty	Price	
				PUH-P4Y		PU-P4Y					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
2	S70 30L 115	PROPELLER FAN 4		2	2	2	2					
3	S70 30L 097	NUT	M8	2	2	2	2					
4	S70 E05 408	HEAT EXCHANGER		1	1	1	1					
5	S70 E04 763	OUTDOOR FAN MOTOR	N02A672MT	1	1	1	1		MF			
6	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
7	S70 42L 467	MUFFLER		1	1							
8	S70 E18 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
9	S70 E00 413	CHARGE PLUG		2	2	2	2					
10	S70 070 400	COMPRESSOR	NE56YDKMT	1	1	1	1		MC			
11	S70 300 418	STOP VALVE (LIQUID)	3/8˝	1	1	1	1					
12	S70 E05 236	CRANKCASE HEATER	240V / 38W	1	1	1	1		CH			
13	S70 E05 411	BALL VALVE	3/4˝	1	1	1	1					
14	S70 E05 440	ACCUMULATOR		1	1	1	1					
15	S70 42L 450	STRAINER	#50-19.1	1	1	1	1					
16	S70 E03 405	FILTER DRYER		1		1						
17	S70 E01 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 350mm	1	1	1	1					
18	S70 E02 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 350mm	1	1	1	1					
19	S70 E14 202	THERMISTOR(LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
20	S70 E05 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
21	S70 350 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
22	S70 260 403	4-WAY VALVE (REVERSING)		1	1							
23	S70 32L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
24	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
25	S70 30L 255	OUTDOOR FAN CAPACITOR	2.2μF × 440V	2	2	2	2		C3, C4			
26	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
27	S70 E10 716	TERMINAL BLOCK	4P(L1,L2,L3,N)	1	1	1	1		TB1			
28	S70 331 708	CONTACTOR	MSO-N11	1	1	1	1		51C, 52C			
29	S70 E04 408	HEAT EXCHANGER		1	1	1	1					
(30)	S70 30L 450	STRAINER	#50-9.52	1		1						

FUNCTIONAL PARTS
PUH-P5YGAA.UK PUH-P5YGAA$_1$.UK
PU-P5YGAA.UK PU-P5YGAA$_1$.UK



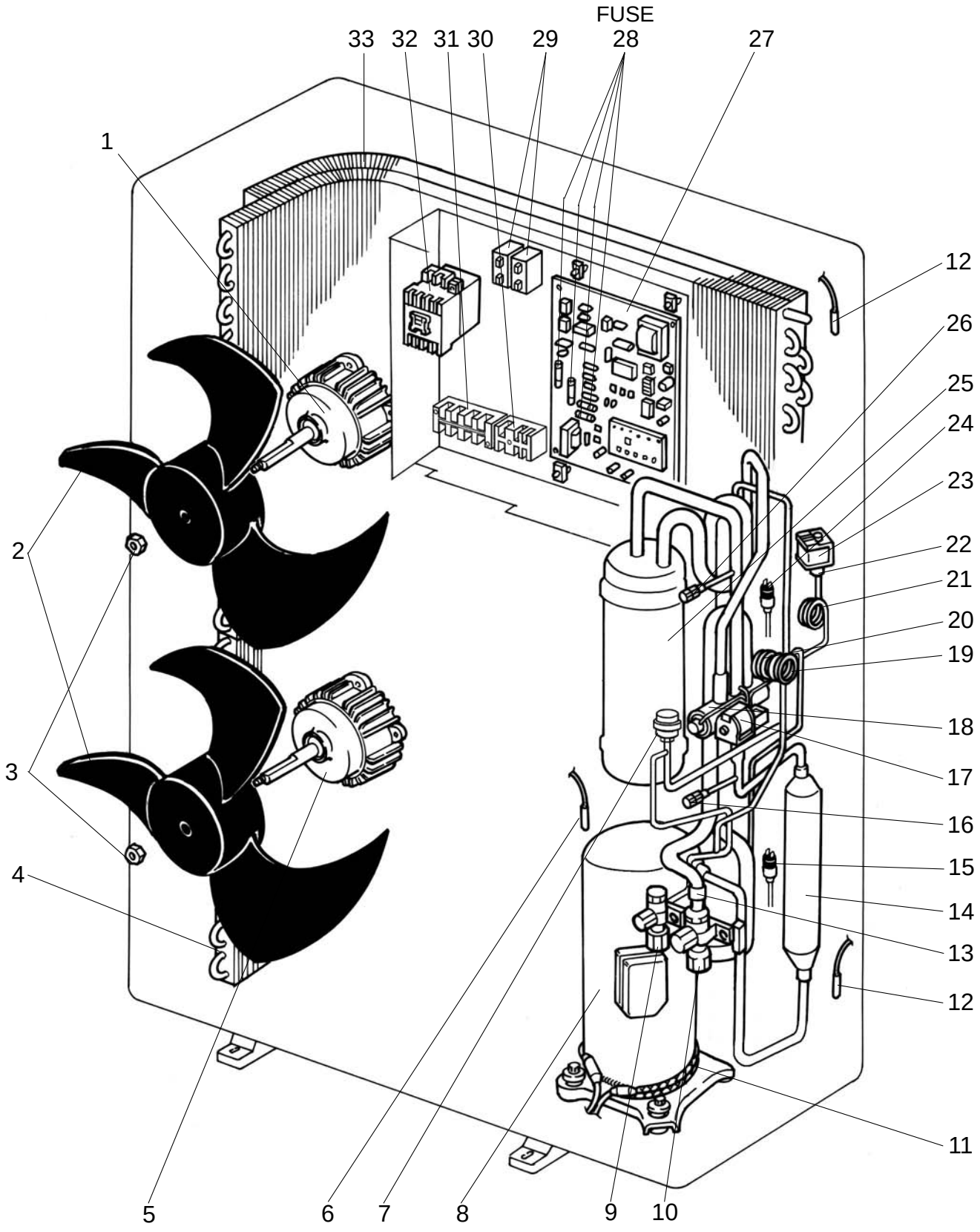
Part number that are circled are not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P5Y		PU-P5Y					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
2	S70 30L 115	PROPELLER FAN 4		2	2	2	2					
3	S70 30L 097	NUT	M8	2	2	2	2					
4	S70 E07 408	HEAT EXCHANGER		1	1	1	1					
5	S70 E04 763	OUTDOOR FAN MOTOR	N02A672MT	1	1	1	1		MF			
6	S70 E19 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
7	S70 E06 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
※ 8	S70 080 400	COMPRESSOR (WITH CONVERSION KIT)	ZR61KCW-TFD-522	1	1	1	1		MC			
9	S70 300 418	STOP VALVE (LIQUID)	3/8"	1	1	1	1					
10	S70 E05 411	BALL VALVE	3/4"	1	1	1	1					
11	S70 E01 236	CRANKCASE HEATER	240V / 38W	1	1	1	1		CH			
12	S70 E17 202	THERMISTOR (LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
13	S70 42L 450	STRAINER	#50-19.1	1	1	1	1					
14	S70 42L 467	MUFFLER		1	1							
15	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
16	S70 E01 413	CHARGE PLUG		1	1	1	1					
17	S70 251 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
18	S70 E02 403	4-WAY VALVE (REVERSING)		1	1							
19	S70 E03 405	FILTER DRYER		1	1	1	1					
20	S70 E05 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 200mm	1	1	1	1					
21	S70 E06 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 200mm	1	1	1	1					
22	S70 E03 425	CAPILLARY TUBE	ϕ4.0 X ϕ2.0 X 400mm	1	1							
23	S70 A14 428	BYPASS VALVE		1	1							
24	S70 351 242	BYPASS VALVE SOLENOID COIL		1	1				SV			
25	S70 E06 440	ACCUMULATOR		1	1	1	1					
26	S70 E00 413	CHARGE PLUG		1	1	1	1					
27	S70 32L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
28	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
29	S70 17T 255	FAN MOTOR CAPACITOR	3.5μF × 440V	2	2	2	2		C3, C4			
30	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
31	S70 E10 716	TERMINAL BLOCK	4P(L1,L2,L3,N)	1	1	1	1		TB1			
32	S70 334 708	CONTACTOR	MSO-N20	1	1	1	1		51C, 52C			
33	S70 E06 408	HEAT EXCHANGER		1	1	1	1					
(34)	S70 30L 450	STRAINER	#50-9.52	1	1	1	1					
(35)	S70 516 495	ACOCSTIC COMPRESSOR CAP		1	1	1	1					
(36)	S70 516 496	ACOCSTIC COMPRESSOR BASE		1	1	1	1					
(37)	S70 516 497	ACOCSTIC COMPRESSOR JACKET		1	1	1	1					

※ COMPRESSOR COVERSION KIT (TFD-230) is packaged with compressor ZR61KCE-TFD-522 which Parts No. is S70 080 400.

COMPRESSOR CONVERSION KIT (TFD-230) is necessary only for replacing faston type COMPRESSOR ZR61KCE-TFD-230 with screw type COMPRESSOR ZR61KCW-TFD-522.

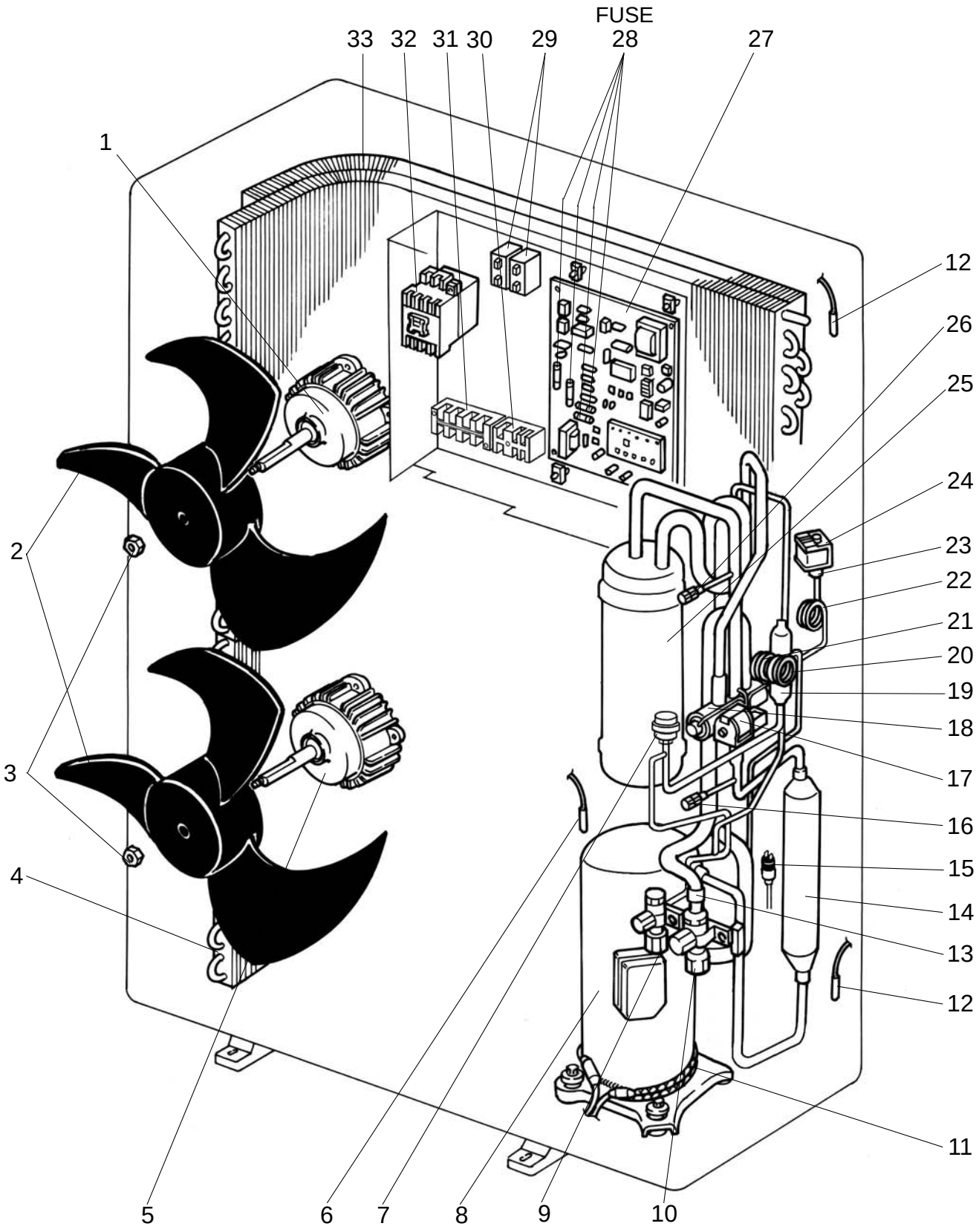
FUNCTIONAL PARTS
PUH-P5YGAA2.UK
PU-P5YGAA2.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set		Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P5 YGAA2.UK	PU-P5 YGAA2.UK				Unit	Amount
1	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1		MF			
2	S70 30L 115	PROPELLER FAN 4		2	2					
3	S70 30L 097	DOME CAP NUT	M8	2	2					
4	S70 E07 408	HEAT EXCHANGER (UNDER)		1	1					
5	S70 E04 763	OUTDOOR FAN MOTOR	N02A672MT	1	1		MF			
6	S70 E19 202	THERMISTOR (DISCHARGE)		1	1		TH4			
7	S70 E06 401	LINEAR EXPANSION VALVE		1	1		LEV			
8	S70 H10 400	COMPRESSOR	BE82YADMT	1	1		MC			
9	S70 300 418	STOP VALVE (LIQUID)	3/8"	1	1					
10	S70 E05 411	BALL VALVE	3/4"	1	1					
11	S70 H40 236	CRANKCASE HEATER	240V / 38W	1	1		CH			
12	S70 E17 202	THERMISTOR (LIQUID , CONDENSER / EVAPORATOR)		1	1		TH3, TH6			
13	S70 42L 450	STRAINER	#50-19.1	1	1					
14	S70 42H 467	MUFFLER		1						
15	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON :2.6MPa	1	1		63H			
16	S70 E01 413	CHARGE PLUG		1	1					
17	S70 251 242	4-WAY VALVE SOLENOID COIL		1			21S4			
18	S70 E02 403	4-WAY VALVE (REVERSING)		1						
19	S70 E05 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 200mm	1	1					
20	S70 E06 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 200mm	1	1					
21	S70 E03 425	CAPILLARY TUBE	ϕ4.0 X ϕ2.0 X 400mm	1						
22	S70 A14 428	BYPASS VALVE		1						
23	S70 351 242	BYPASS VALVE SOLENOID COIL		1			SV			
24	S70 H20 209	LOW PRESSURE SWITCH	OFF:-0.03MPa ON :0.05MPa	1	1		63L			
25	S70 E06 440	ACCUMULATOR		1	1					
26	S70 E00 413	CHARGE PLUG		1	1					
27	S70 33H 315	OUTDOOR CONTROLLER BOARD		1	1		O.B			
28	S70 520 239	FUSE	6.3A	4	4	(PART OF BOARD)	FUSE			
29	S70 17T 255	FAN MOTOR CAPACITOR	3.5μF X 440V	2	2		C3, C4			
30	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1		TB2			
31	S70 E10 716	TERMINAL BLOCK	4P(L1,L2,L3,N)	1	1		TB1			
32	S70 334 708	CONTACTOR	MSO-N20	1	1		51C, 52C			
33	S70 H12 408	HEAT EXCHANGER (TOP)		1	1					
(34)	S70 30L 450	STRAINER	#50-9.52	1	1					
(35)	S70 H30 450	STRAINER ASSY		1	1					

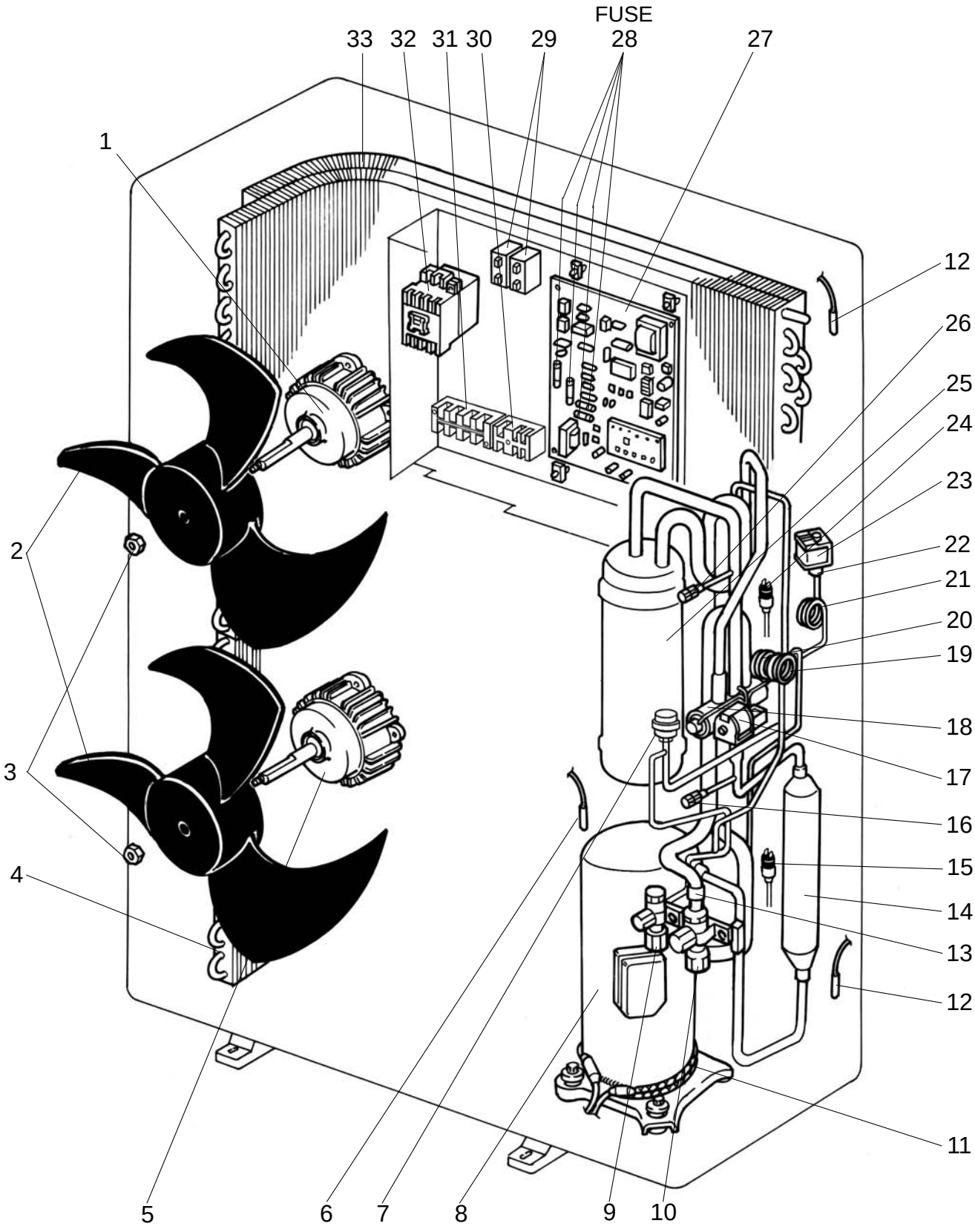
FUNCTIONAL PARTS
PUH-P6YGAA.UK PUH-P6YGAA$_1$.UK
PU-P6YGAA.UK PU-P6YGAA$_1$.UK



Part number that are circled are not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set				Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P6Y		PU-P6Y					Unit	Amount
				GAA.UK	GAA1.UK	GAA.UK	GAA1.UK					
1	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1	1	1		MF			
2	S70 30L 115	PROPELLER FAN 4		2	2	2	2					
3	S70 30L 097	NUT	M8	2	2	2	2					
4	S70 E07 408	HEAT EXCHANGER		1	1	1	1					
5	S70 E04 763	OUTDOOR FAN MOTOR	N02A672MT	1	1	1	1		MF			
6	S70 E19 202	THERMISTOR (DISCHARGE)		1	1	1	1		TH4			
7	S70 E06 401	LINEAR EXPANSION VALVE		1	1	1	1		LEV			
8	S70 081 400	COMPRESSOR	ZR72KCW-TFD-522	1	1	1	1		MC			
9	S70 300 418	STOP VALVE (LIQUID)	3/8"	1	1	1	1					
10	S70 E05 411	BALL VALVE	3/4"	1	1	1	1					
11	S70 E01 236	CRANKCASE HEATER	240V / 38W	1	1	1	1		CH			
12	S70 E17 202	THERMISTOR (LIQUID , CONDENSER / EVAPORATOR)		1	1	1	1		TH3, TH6			
13	S70 42L 450	STRAINER	#50-19.1	1	1	1	1					
14	S70 42L 467	MUFFLER		1	1							
15	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON:2.6MPa	1	1	1	1		63H			
16	S70 E01 413	CHARGE PLUG		1	1	1	1					
17	S70 251 242	4-WAY VALVE SOLENOID COIL		1	1				21S4			
18	S70 E02 403	4-WAY VALVE (REVERSING)		1	1							
19	S70 E03 405	FILTER DRYER		1	1	1	1					
20	S70 E05 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 200mm	1	1	1	1					
21	S70 E06 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 200mm	1	1	1	1					
22	S70 E04 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 450mm	1	1							
23	S70 A14 428	BYPASS VALVE		1	1							
24	S70 351 242	BYPASS VALVE SOLENOID COIL		1	1				SV			
25	S70 E06 440	ACCUMULATOR		1	1	1	1					
26	S70 E00 413	CHARGE PLUG		1	1	1	1					
27	S70 32L 315	OUTDOOR CONTROLLER BOARD		1	1	1	1		O.B			
28	S70 520 239	FUSE	6.3A	4	4	4	4	(PART OF BOARD)	FUSE			
29	S70 17T 255	FAN MOTOR CAPACITOR	3.5μF X 440V	2	2	2	2		C3, C4			
30	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1	1	1		TB2			
31	S70 E10 716	TERMINAL BLOCK	4P(L1,L2,L3,N)	1	1	1	1		TB1			
32	S70 334 708	CONTACTOR	MSO-N20	1	1	1	1		51C, 52C			
33	S70 E06 408	HEAT EXCHANGER		1	1	1	1					
(34)	S70 30L 450	STRAINER	#50-9.52	1	1	1	1					
(35)	S70 516 495	ACOCSTIC COMPRESSOR CAP		1	1	1	1					
(36)	S70 516 496	ACOCSTIC COMPRESSOR BASE		1	1	1	1					
(37)	S70 516 497	ACOCSTIC COMPRESSOR JACKET		1	1	1	1					

FUNCTIONAL PARTS
PUH-P6YGAA2.UK
PU-P6YGAA2.UK



Part number that is circled is not shown in the figure.

No.	Part No.	Part Name	Specification	Q'ty/set		Remarks	Wiring Diagram Symbol	Recommended Q'ty	Price	
				PUH-P6 YGAA2.UK	PU-P6 YGAA2.UK				Unit	Amount
1	S70 E03 763	OUTDOOR FAN MOTOR	N026P72MT	1	1		MF			
2	S70 30L 115	PROPELLER FAN 4		2	2					
3	S70 30L 097	DOME CAP NUT	M8	2	2					
4	S70 E07 408	HEAT EXCHANGER (UNDER)		1	1					
5	S70 E04 763	OUTDOOR FAN MOTOR	N02A672MT	1	1		MF			
6	S70 E19 202	THERMISTOR (DISCHARGE)		1	1		TH4			
7	S70 E06 401	LINEAR EXPANSION VALVE		1	1		LEV			
8	S70 H60 400	COMPRESSOR	BE96YADMT	1	1		MC			
9	S70 300 418	STOP VALVE (LIQUID)	3/8"	1	1					
10	S70 E05 411	BALL VALVE	3/4"	1	1					
11	S70 H40 236	CRANKCASE HEATER	240V / 38W	1	1		CH			
12	S70 E17 202	THERMISTOR (LIQUID , CONDENSER / EVAPORATOR)		1	1		TH3, TH6			
13	S70 42L 450	STRAINER	#50-19.1	1	1					
14	S70 42H 467	MUFFLER		1						
15	S70 E00 208	HIGH PRESSURE SWITCH	OFF:3.3MPa ON :2.6MPa	1	1		63H			
16	S70 E01 413	CHARGE PLUG		1	1					
17	S70 251 242	4-WAY VALVE SOLENOID COIL		1			21S4			
18	S70 E02 403	4-WAY VALVE (REVERSING)		1						
19	S70 E05 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 200mm	1	1					
20	S70 E06 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 200mm	1	1					
21	S70 E04 425	CAPILLARY TUBE	ϕ4.0 X ϕ3.0 X 450mm	1						
22	S70 A14 428	BYPASS VALVE		1						
23	S70 351 242	BYPASS VALVE SOLENOID COIL		1			SV			
24	S70 H20 209	LOW PRESSURE SWITCH	OFF:-0.03MPa ON :0.05MPa	1	1		63L			
25	S70 E06 440	ACCUMULATOR		1	1					
26	S70 E00 413	CHARGE PLUG		1	1					
27	S70 33H 315	OUTDOOR CONTROLLER BOARD		1	1		O.B			
28	S70 520 239	FUSE	6.3A	4	4	(PART OF BOARD)	FUSE			
29	S70 17T 255	FAN MOTOR CAPACITOR	3.5μF X 440V	2	2		C3, C4			
30	S70 E04 716	TERMINAL BLOCK	3P(S1,S2,S3)	1	1		TB2			
31	S70 E10 716	TERMINAL BLOCK	4P(L1,L2,L3,N)	1	1		TB1			
32	S70 334 708	CONTACTOR	MSO-N20	1	1		51C, 52C			
33	S70 H12 408	HEAT EXCHANGER (TOP)		1	1					
(34)	S70 30L 450	STRAINER	#50-9.52	1	1					
(35)	S70 H30 450	STRAINER ASSY		1	1					

14 OPTIONAL PARTS

14-1. DRAIN SOCKET

Part No.	PAC-SF37DS-E
Applied models	PU/PUH-P • GAA

14-2. AIR OUTLET GUIDE

Part No.	PAC-SF08SG-E
Applied models	PU/PUH-P • GAA

※ PU/PUH-P4, P5, P6 • GAA needs two piece.

14-3. DRAIN PAN

Part No.	PAC-SF16DP-E	PAC-SF17DP-E
Applied models	PU/PUH-P1, P1.6, P2, P2.5, P3, P4 • GAA	PU/PUH-P5, P6YGAA

14-4. A / M-NET ADAPTER

Part No.	PAC-SF48MA-E
Applied models	PU/PUH-P • GAA

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